FOUNDED IN 1856

RAILWAY AGE

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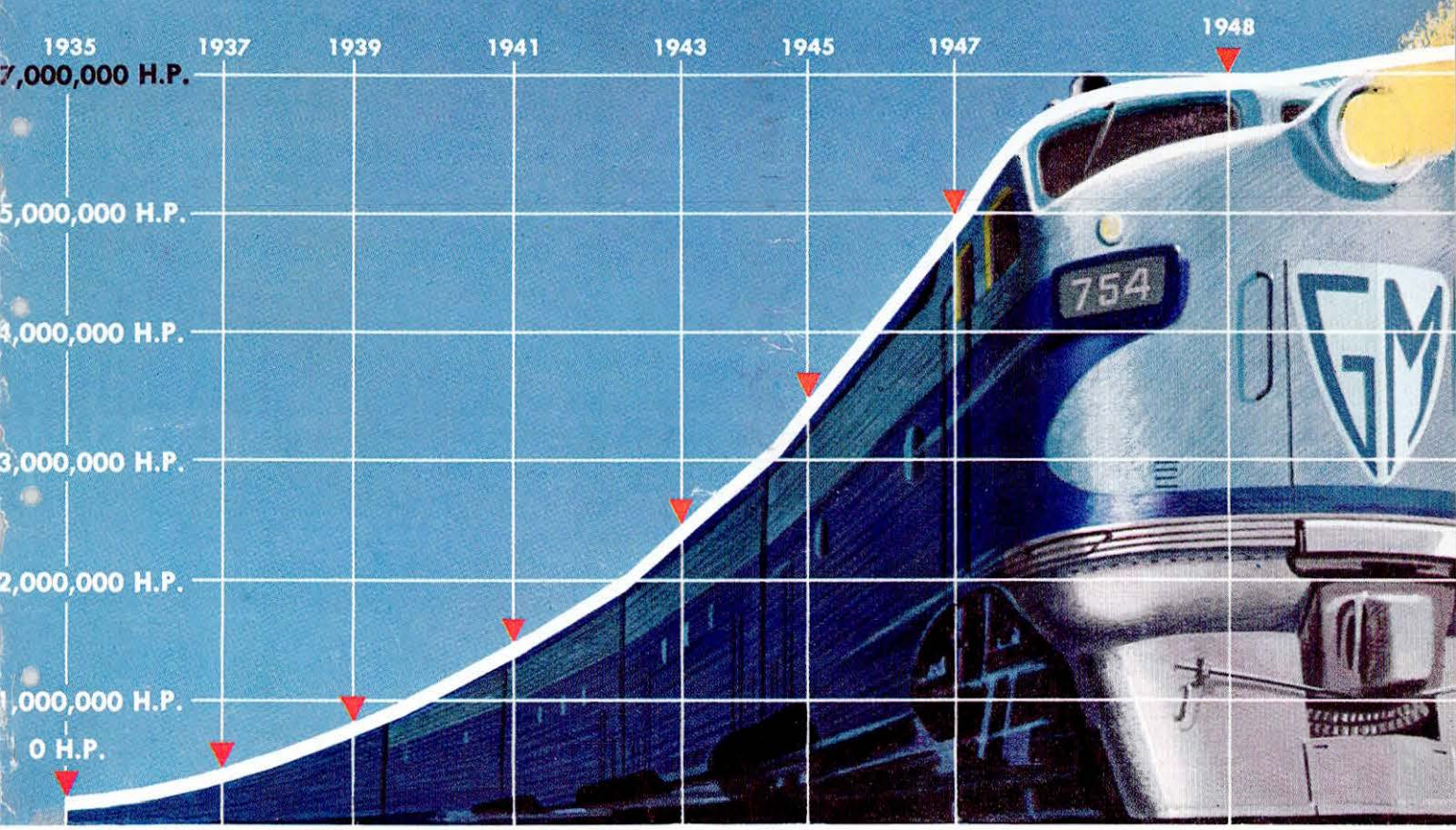
JUNE 18, 1949

GENERAL MOTORS DIESEL HORSEPOWER ON THE RAILROADS TOTALS MORE THAN 7,700,000



THE ten millionth horsepower in General Motors heavy-duty Diesel engines was produced by Electro-Motive at La Grange in December, 1948, and the eleven million mark is very close. Of this total over 7,700,000 horsepower has gone into more than 5,600 General Motors Diesel locomotive units in railroad freight, passenger and switching service. Most of the remaining three million horsepower was produced for the United States Navy during World War II to power LST landing ships and SC sub-chasers. Currently, an average of seven complete Diesel locomotive units go to the railroads from Electro-Motive every working day.

GENERAL MOTORS LOCOMOTIVES

ELECTRO-MOTIVE
DIVISION OF
GENERAL MOTORS
LA GRANGE, ILL.
Home of the Diesel Locomotive

LEHIGH & NEW ENGLAND'S railroad Diesel No. 702. All Diesel locomotives on this railroad are *100% lubricated with Texaco Dieseltex HD*. By the end of 1949, Lehigh & New England expects to be one of the few completely Dieselized railroads in the country.

Assure Cleaner Operation

. . . and get more mileage between overhauls by lubricating with Texaco Dieseltex HD

GET all the power and economy your Diesels are built to give you. Lubricate with *Texaco Dieseltex HD* — made to keep engines free of carbon, sludge and gum formations, assuring more trouble-free operation, greater protection, lower maintenance costs.

Texaco Dieseltex HD lubricating oils for railroad Diesels are fully detergent and dispersive. An exclusive formula, incorporating a special heavy-duty additive, assures high resistance to oxidation. These oils have been proved by rigid laboratory tests and actual road service . . . and more than meet the most stringent requirements of leading Diesel locomotive builders.

Texaco's unique Systematic Engineering Service embodies tests and controls that permit quick, positive evaluation of both engine and lubricating oils. A Texaco Lubrication Engineer will gladly tell you about it. Call the nearest Railway Sales Division office listed below, or write The Texas Company, *Railway Sales Division,* 135 East 42nd Street, New York 17, N. Y.

NEW YORK • CHICAGO • SAN FRANCISCO • ST. PAUL • ST. LOUIS • ATLANTA

TEXACO

TEXACO Dieseltex HD

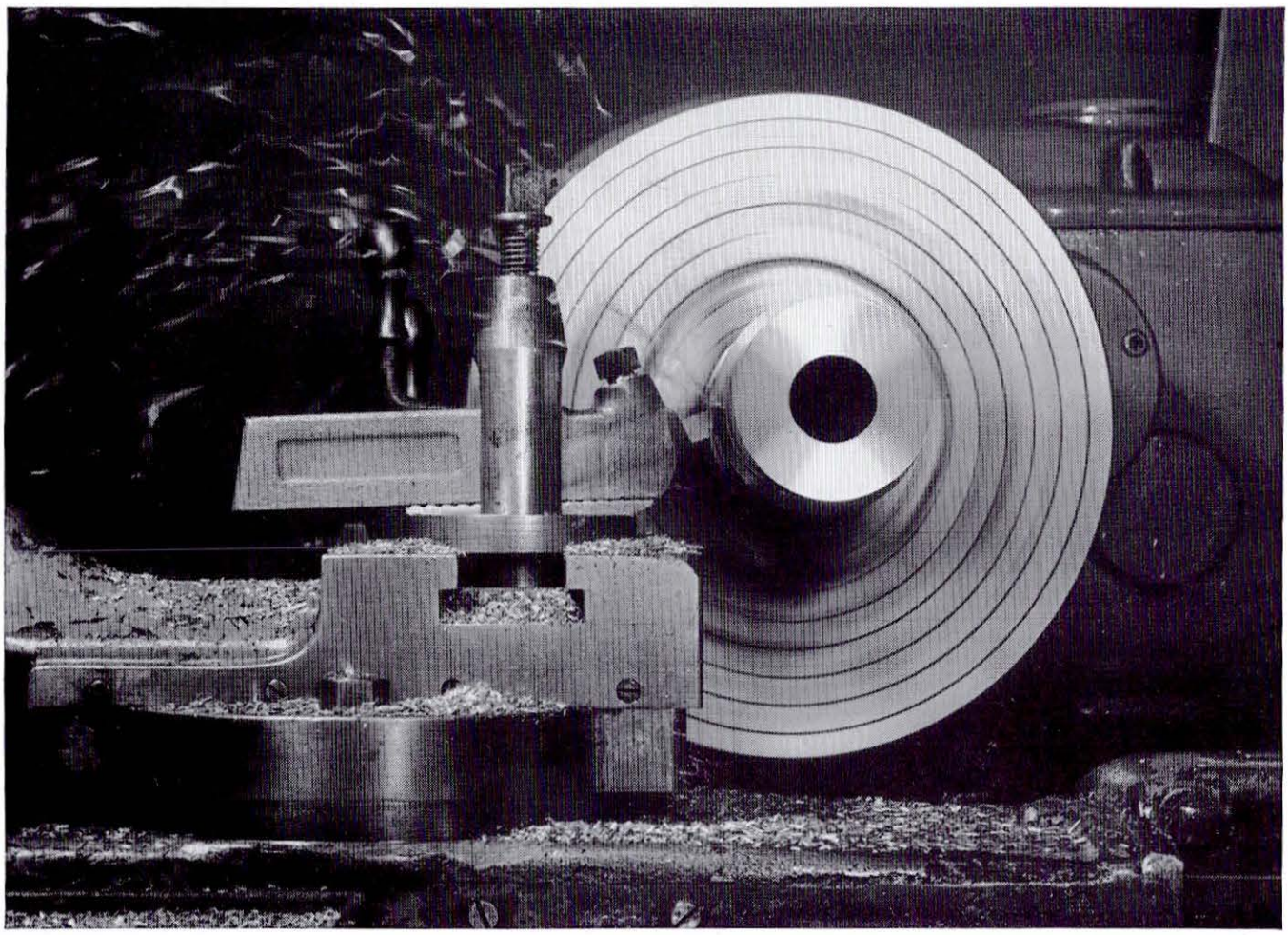
FOR ALL RAILROAD DIESELS

Tune in . . . TEXACO STAR THEATRE every Wednesday night starring Milton Berle. See newspaper for time and station.

Published weekly by Simmons-Boardman Publishing Corporation, Orange, Conn. Executive Offices, 30 Church Street, New York 7, N. Y. Entered as second class matter at Orange, Conn., under the act of March 3, 1879. Subscription price $6.00 for one year. U. S. and Canada. Single copies, 50 cents each. Vol. 126, No. 25.

Resulphurized Alloy Steels

for faster machining...for longer tool life



The use of certain grades of resulphurized steels can have a considerable effect on production costs. Time required for machining is usually reduced, and the number of pieces produced per tool is often increased to a substantial degree. These advantages, of course, vary with the grade and sulphur content of the steel used, the structure, the type of machining operation, and the specifications of the finished part.

Bethlehem manufactures free-machining resulphurized steels in a variety of grades. Our metallurgists will gladly furnish detailed information and explain how these steels can be used to advantage in your work. Write or phone.

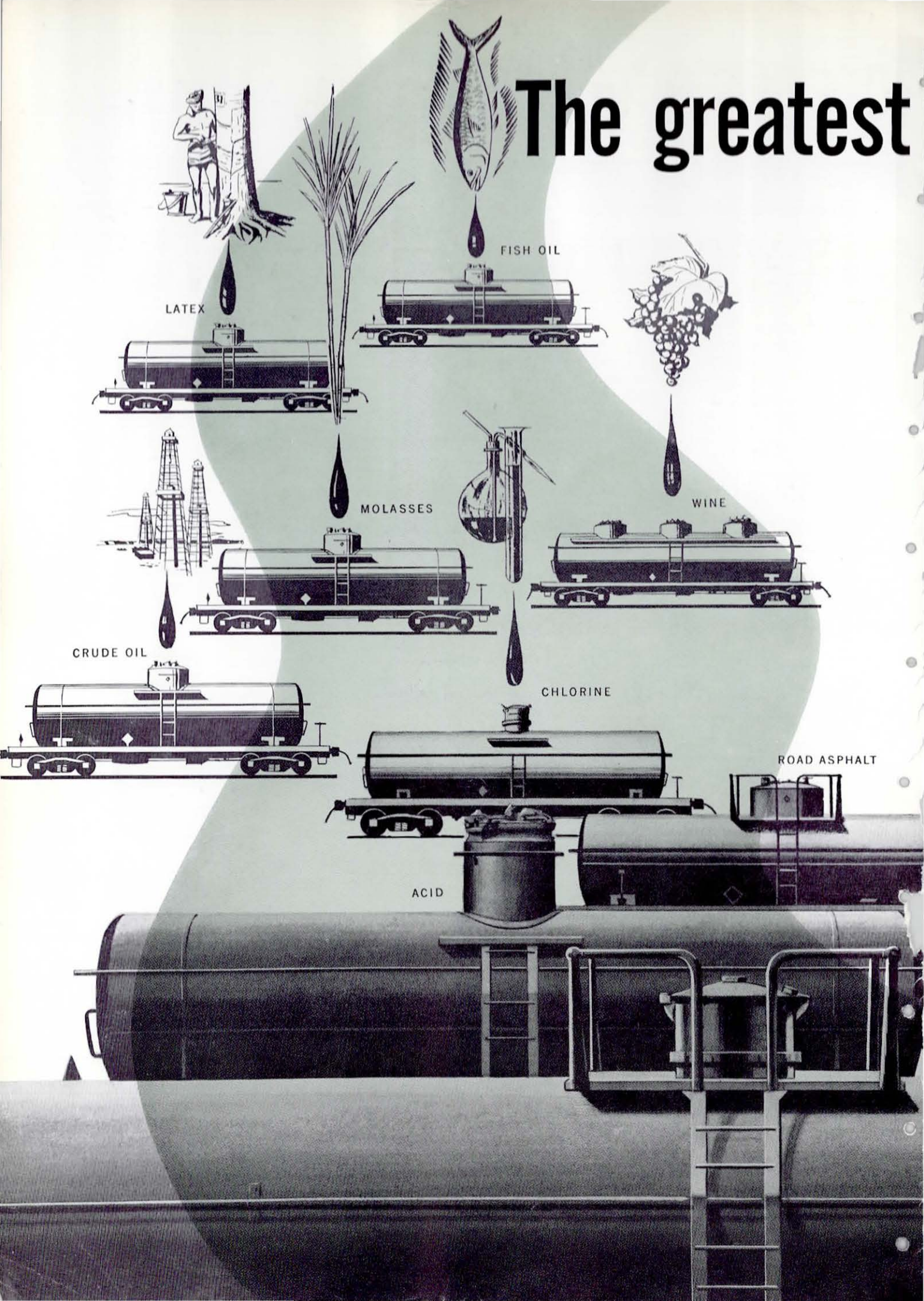
BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation

★ **BETHLEHEM ALLOY STEELS** ★

BETHLEHEM STEEL ★

The greatest



STREAM on earth keeps rolling by RAIL!

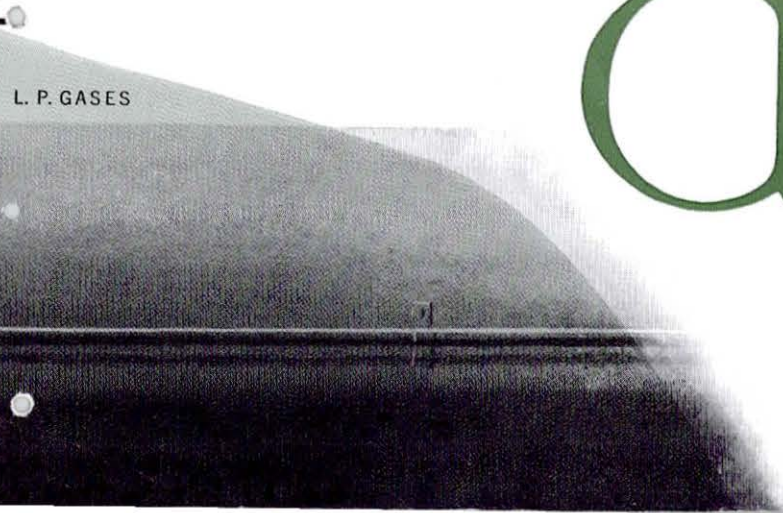
Tank cars by the thousands . . . a mighty stream of liquids-in-bulk pouring life-blood into American Industry. Acids, oils, syrups and synthetics — all delivered "good to the last drop" by America's basic transportation —the Railroads.

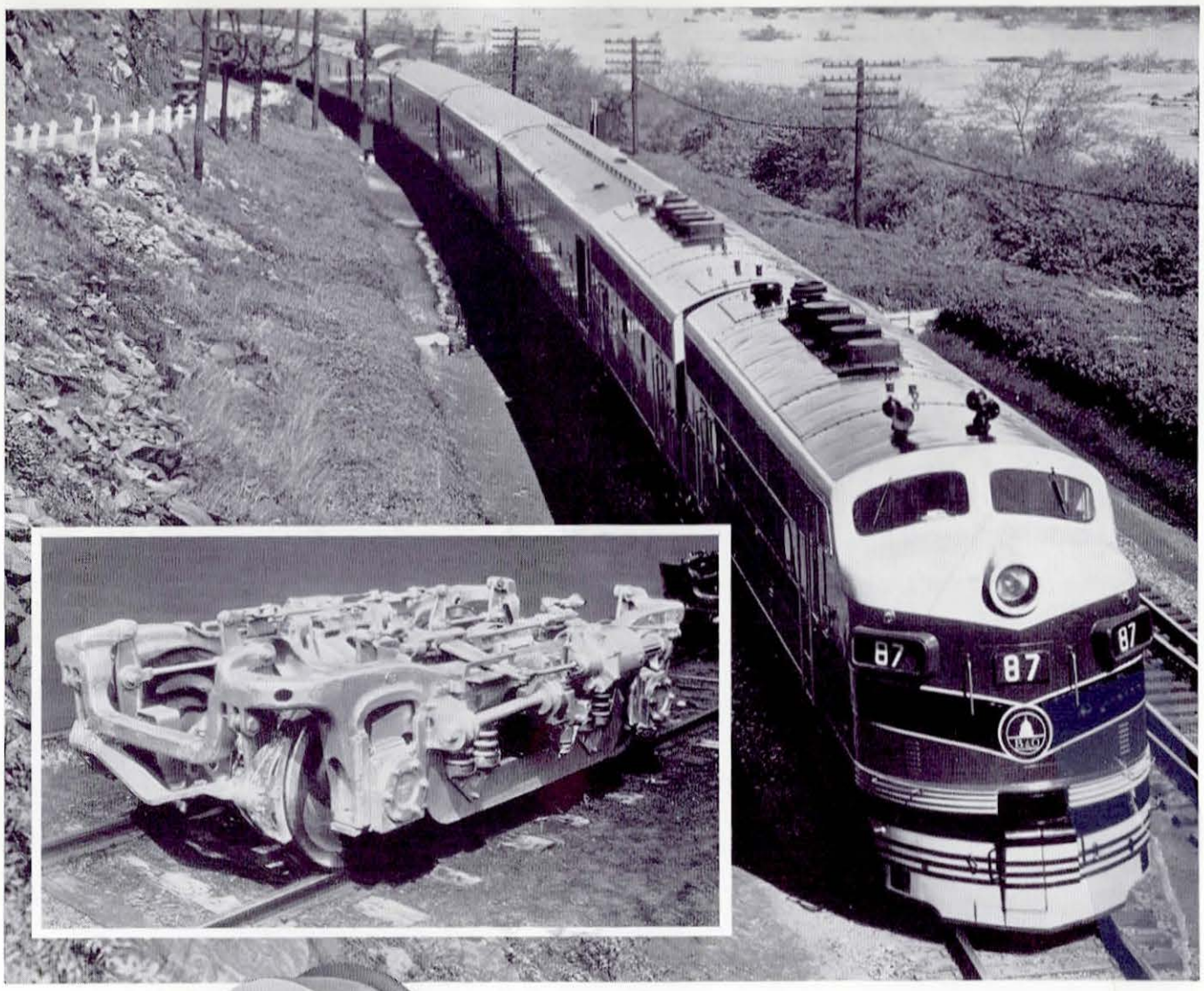
Where these trade currents run swiftest and surest, there you'll find tonnage dependable tank cars built by a,C,f. Rugged cars with all-welded tanks and under-frames. Smooth-rolling cars with linings and capacities to fill the bill of every shipper and railroad . . . all efficiently and economically constructed on fast-moving a,C,f. production lines.

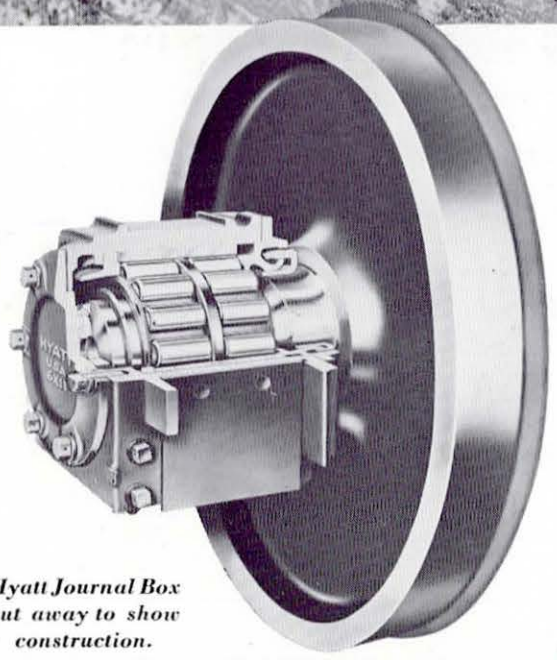
a,C,f. equipment makes friends fast and fast friends . . . the sort of rolling stock that *keeps on rolling.* American Car and Foundry Company, New York · Chicago · St. Louis · Cleveland · Philadelphia · Washington Pittsburgh · San Francisco

CAR BUILDERS TO AMERICA'S RAILROADS

a,C,f,







Hyatt Journal Box cut away to show construction.

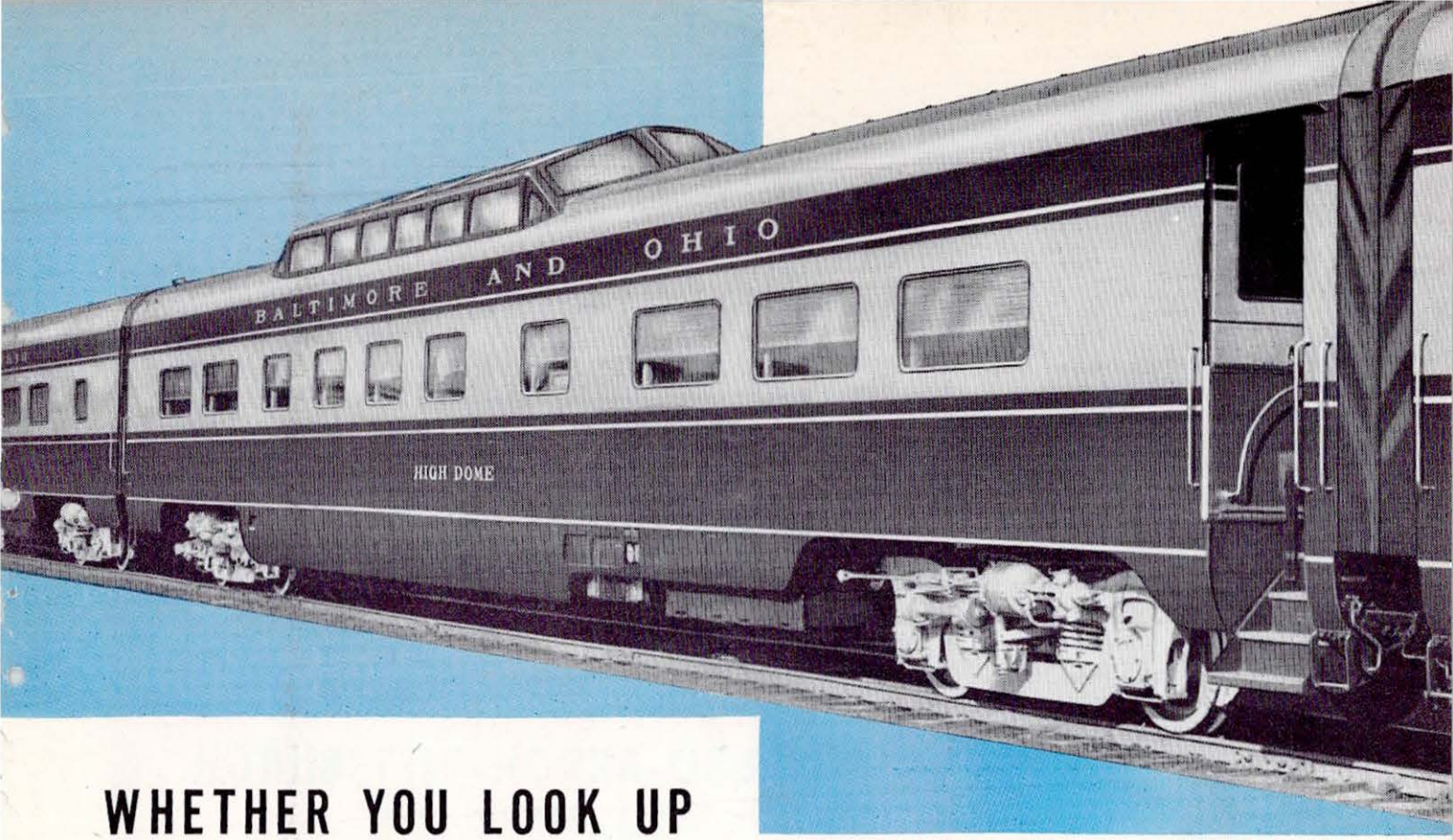
On the new "Columbian" it's HYATTS all the way

On the locomotive and passenger car journals, as well as in the traction motors of the Baltimore and Ohio's new "Columbian", dependable Hyatt Roller Bearings carry the loads.

More and more progressive railroads are specifying Hyatt Journal Boxes for all the cars on their name trains, thereby assuring themselves of completely dependable, smooth riding, easier to maintain roller bearing equipment.

Let us tell you more about what Hyatt can do for you. Write to Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.

HYATT ROLLER BEARING JOURNAL BOXES



WHETHER YOU LOOK UP

...OR UNDERNEATH

"The New Columbian"

IS MODERN THROUGHOUT

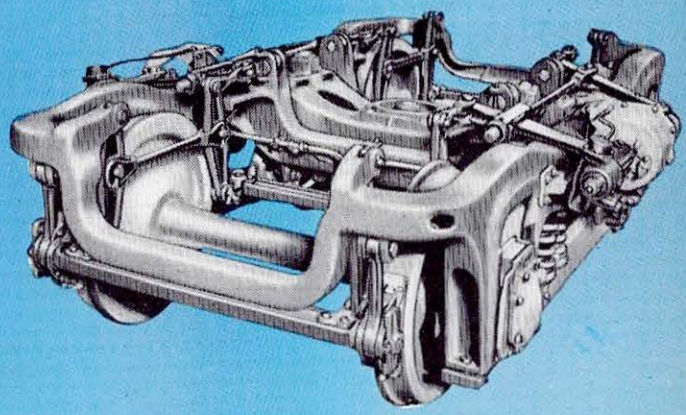
B&O

SPEED. Comfort. *Safety!* Simplex Unit Cylinder Clasp Brakes on all cars of "The New Columbian" provide ability to stop . . . quickly, surely, *smoothly*. 250% braking ratio and high braking efficiency make *every stop* in well below distance limits.

Now, more than ever, "*The B & O is the Way to Go.*" Our congratulations to the road, and to every individual who had a hand in making this swift, *safe* transportation a reality.

Tune in the RAILROAD HOUR

MONDAY NIGHTS ABC NETWORK



Streamlined, Light-Weight

SIMPLEX UNIT CYLINDER CLASP BRAKES

AMERICAN STEEL FOUNDRIES

MINT-MARK OF ○ FINE CAST STEEL

It's Here—

The Train of the Year!

The NEW Columbian

B & O's Strata-Dome Coach Streamliner

NOW IN SERVICE between

CHICAGO-AKRON-PITTSBURGH
WASHINGTON
BALTIMORE-PHILADELPHIA-NEW YORK

The only train serving the East with a thrilling *Strata-Dome car**

*In Service between Chicago and Washington

**STANDARD TIME SHOWN
DAYLIGHT SAVING TIME
IS ONE HOUR LATER**

Eastward (Read Down)		Westward (Read Up)
3.50 PM Lv.	Chicago (Grand Cent. Sta.)	Ar. 7.20 AM
4.11 PM Lv.	Chicago (63rd Street)	Ar. 6.53 AM
4.32 PM Lv.	South Chicago	Ar. 6.35 AM
4.52 PM Lv.	Gary	Ar. 6.14 AM
5.43 PM Lv.	La Paz	Ar. 5.22 AM
7.43 PM Lv.	Garrett	Ar. 5.20 AM
8.20 PM Lv.	Defiance	Ar. ....
.... Lv.	Deshler	Ar. 4.17 AM
9.06 PM Lv.	Fostoria	Ar. 3.51 AM
9.20 PM Lv.	Tiffin	Ar. 3.36 AM
9.55 PM Lv.	Willard	Ar. 3.08 AM
11.08 PM Lv.	Akron	Ar. 1.50 AM
12.05 AM Lv.	Youngstown	Ar. ....
1.36 AM Ar.	Pittsburgh (P.&L.E. Sta.)	Lv. 11.35 PM
2.07 AM Ar.	McKeesport	Lv. 10.58 PM
3.02 AM Ar.	Connellsville	Lv. 10.05 PM
5.17 AM Ar.	Cumberland	Lv. 7.47 PM
6.52 AM Ar.	Martinsburg	Lv 6.10 PM
8.05 AM Ar.	Silver Spring	Lv. 4.54 PM
8.25 AM Ar.	Washington	Lv. 4.40 PM
9.38 AM Ar.	Baltimore	Lv. 3.18 PM
10.50 AM Ar.	Wilmington	Lv. 2.05 PM
11.22 AM Ar.	Philadelphia	Lv. 1.37 PM
12.36 PM Ar.	Plainfield	Lv. 12.25 PM
12.49 PM Ar.	Elizabeth	Lv. 12.11 PM
Ar.	New York	
1.45 PM	(42nd St. Sta.†)	Lv. 11.10 AM

†one of 13 places in New York and Brooklyn served by the B&O.

B&O — LINKING 13 GREAT STATES WITH THE NATION®

MANY OUTSTANDING FEATURES

Here's another Baltimore & Ohio train that you will be eager to ride. It's beautifully streamlined, powered by a great Diesel-electric locomotive; and, inside, offers a world of friendliness and gaiety, of color and comfort.

1. HIGH OVER THE RAILS you ride in the *New* Columbian's Strata-Dome. You feel as if floating in space, and can see the sights in every direction, as well as the sky overhead.

2. COACHES THAT YOU WILL DELIGHT IN! These are not only decorated in distinctive color schemes but are also designed for smooth, restful riding. There are "Sleepy Hollow" reclining seats with "tailored" softness; Venetian blinds that adjust at fingers' pressure; wide windows—that never "steam up"—give a clear view of the passing countryside. And such additional features as individual seat-lights—extra-wide baggage racks—fluorescent lighting—drinking water, electrically cooled. Coach seats reserved in advance without charge.

3. "FRESHENING UP" is pleasant in the women's rest rooms. There are full-length mirrors, satin-finish chrome, gleaming porcelain, blue Marbelle flooring, and time-saving double facilities.

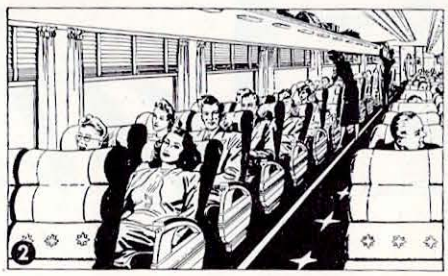
4. SEMI-PRIVATE SMOKING LOUNGES provide new freedom for family groups and parties. With their comfortable sofa-type seats, Marbelle flooring, fluorescent lights, and smoking accessories, they make friendly gathering-places. Seats are not reserved in the smoking lounges.

5. EVEN ONE OF B&O'S MARVELOUS MEALS tastes better in this Dining Car! It has "suspended" tables and an unusual seating arrangement. The car accommodates thirty-eight persons, with ample room for all.

6. THE OBSERVATION-LOUNGE may be visited whenever you wish (there's no extra charge). There are foam-rubber chairs and sofas, a desk, newspapers and current magazines.

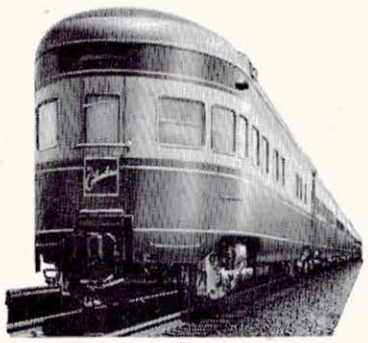
DIESEL-ELECTRIC! • DELUXE COACHES! • "SLEEPY HOLLOW" SEATS!
GLAMOROUS LOUNGES! • STEWARDESS! • MAID SERVICE!
REGULAR COACH FARES!

Those who know... use the B&O!



BALTIMORE & OHIO RAILROAD

Hail, Columbian!



One of the finest trains linking the East and the Midwest is The *New* Columbian, the B & O's blue, gray, and gold Strata-Dome streamliner . . . now giving all-coach, all-*luxury* service between Chicago and Washington.

Pullman-Standard is proud of the part it played in making this train a triumphant reality. Every car is a demonstration of forward-looking design and engineering, and the most exacting craftsmanship.

The *New* Columbian's Strata-Dome car is the *first* of its type on eastern lines. The diner's diagonal seating is a Pullman-Standard innovation. In every detail, The *New* Columbian offers convincing evidence of Pullman-Standard leadership in building America's most distinguished trains.

MANY NOTEWORTHY FEATURES make The *New* Columbian an outstanding train. Among these are wide, clear-vision windows; Venetian blinds with finger-tip control; stainless-steel doors, opening electro-pneumatically; rubber-cushioned trucks with shock absorbers; electric coolers for drinking water; and a public announcement system in every car.

The New Columbian, built for the Baltimore & Ohio by Pullman-Standard

In the Strata-Dome car, low easy seats invite enjoyment of the passing scene.

The diagonal arrangement of the legless tables brings new pleasure to dining.

The tavern-lounge-observation car is a triumph of decorative planning.

Reclining "Sleepy Hollow" coach seats are adjustable for utmost comfort.

The ladies' lounge adds courteous service to fastidious appointments.

Stewardess-nurse service, with privacy, is provided for women and children.

Pullman-Standard

CAR MANUFACTURING COMPANY

CHICAGO • NEW YORK • CLEVELAND • WASHINGTON, D. C. • PITTSBURGH • BIRMINGHAM

SAN FRANCISCO SALES REPRESENTATIVE: MARK NOBLE

RAILROADERS'

Power Supply

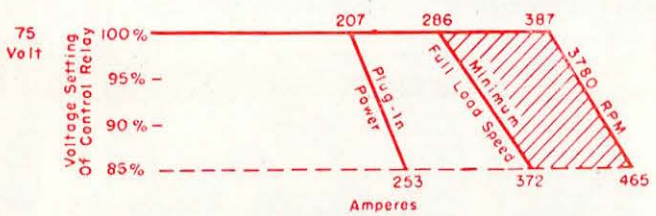
B & O's choice for The NEW "Columbian"

Soft fluorescent lighting, comfortable air conditioning, and pleasant radio music, all made possible by General Electric passenger car power generators, make a trip on "The New Columbian" a delightful experience.

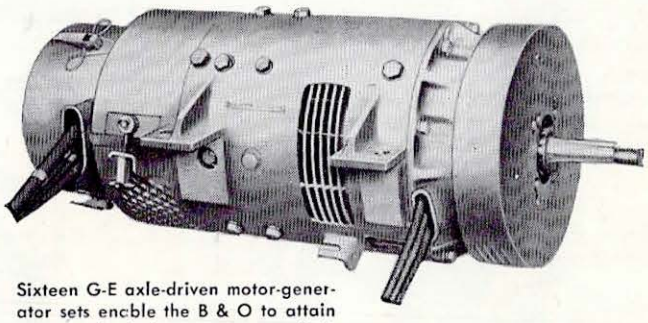
General Electric axle-driven motor generators were a natural choice for the Baltimore & Ohio Railroad's two new *Stratodome* trains of "The New Columbian"... first dome-car trains to go in service east of Chicago.

These motor generators deliver full output over a wide range of train speeds—from very low "yard-limit" speeds to 100 miles an hour or more on the level. This means lower duty on your storage batteries and fewer re-chargings. Also, they charge low batteries at a high rate; fewer stand-by re-chargings are needed.

WANT LOWER ON-LINE POWER COSTS? With the rapidly increasing rise of electric water coolers, fluorescent lighting and electric cooling equipment, savings here can loom large. Your General Electric representative will be glad to give you the full story. For detailed information on G-E axle-driven motor generators, check Bulletin GEA-4671. *Apparatus Dept., General Electric Co., Schenectady 5, N. Y.*



HIGH RESERVE POWER is made possible with a G-E motor generator because the control system permits "current limit" to *increase* as car speed increases. It permits additional current output above this variable "current limit" if the battery voltage is below normal. (See shaded area in the chart shown above.)



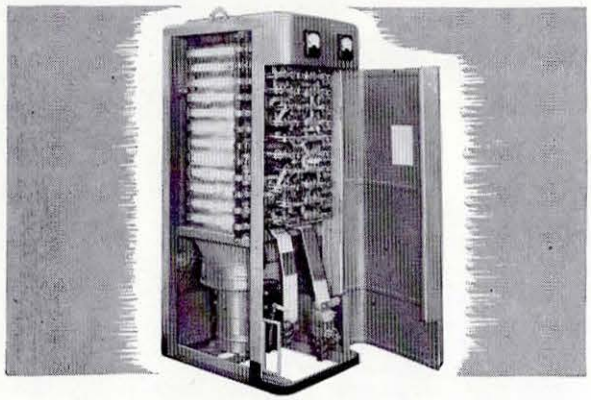
Sixteen G-E axle-driven motor-generator sets enable the B & O to attain new standards in passenger comfort.

You can put your confidence in—

GENERAL ELECTRIC

DIGEST

News and notes about
GENERAL ELECTRIC products
for the railroad industry

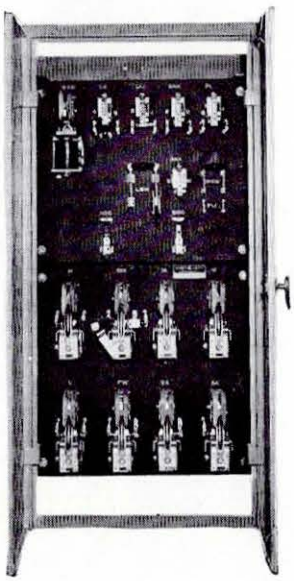


Want a better way to test Deisel-Electric Power Plants?

A General Electric loading resistor will give you a quick, accurate "picture" of diesel-electric power plant performance. With the resistor connected to the propulsion generator, you can easily measure engine power output. Moreover, you can determine exactly where protective generator control settings should be made. The G-E loading resistor has 8 resistance values—enough for a small-horsepower switcher or 2000-hp road locomotives. Check off Bulletin GER-117 on the coupon for more data.

IT'S HERE!

THE CRANE CONTROL SHOP MEN ASKED FOR!



After nearly two years of intensive development and testing, General Electric is now ready with an ALL NEW d-c magnetic crane control—CR4422. Here's a control that actually *speeds up* crane operation by providing faster, safer acceleration and deceleration no matter how erratically the master switch handle is moved. Check into the new G-E d-c crane control now! Write for Bulletin GEA-2292B.

THE CALLBOARD

FOR YOUR FILES

Four new bulletins that will help you maintain passenger car equipment better, at lower cost.

Bulletin GEA-4174A, "Insulation-resistance Meter." For easy detection of insulation faults. Enables you to discover and remedy low values of resistance that may cause equipment failure during high potential tests.

Bulletin GEA-4140A, "Vibration-measuring Equipment." An 8-page bulletin covering 3 vibration measuring devices that detect out-of-balance conditions in rotors quickly and accurately.

Bulletin GEC-233A, "Leak Detector, Type H." For locating extremely small leaks in air conditioning and refrigerating systems in which a halogen compound is the refrigerant.

Bulletin GEC-320A, "Portable Dynamic-Balancing Equipment." For balancing, within a speed range of 600-6000 rpm, rotating parts weighing 30 lbs. or more. Helps you obtain quiet operation of equipment for undercar mounting.

General Electric Company, Section A152-2
Apparatus Department, Schenectady 5, N. Y.

Please send me the following bulletins:

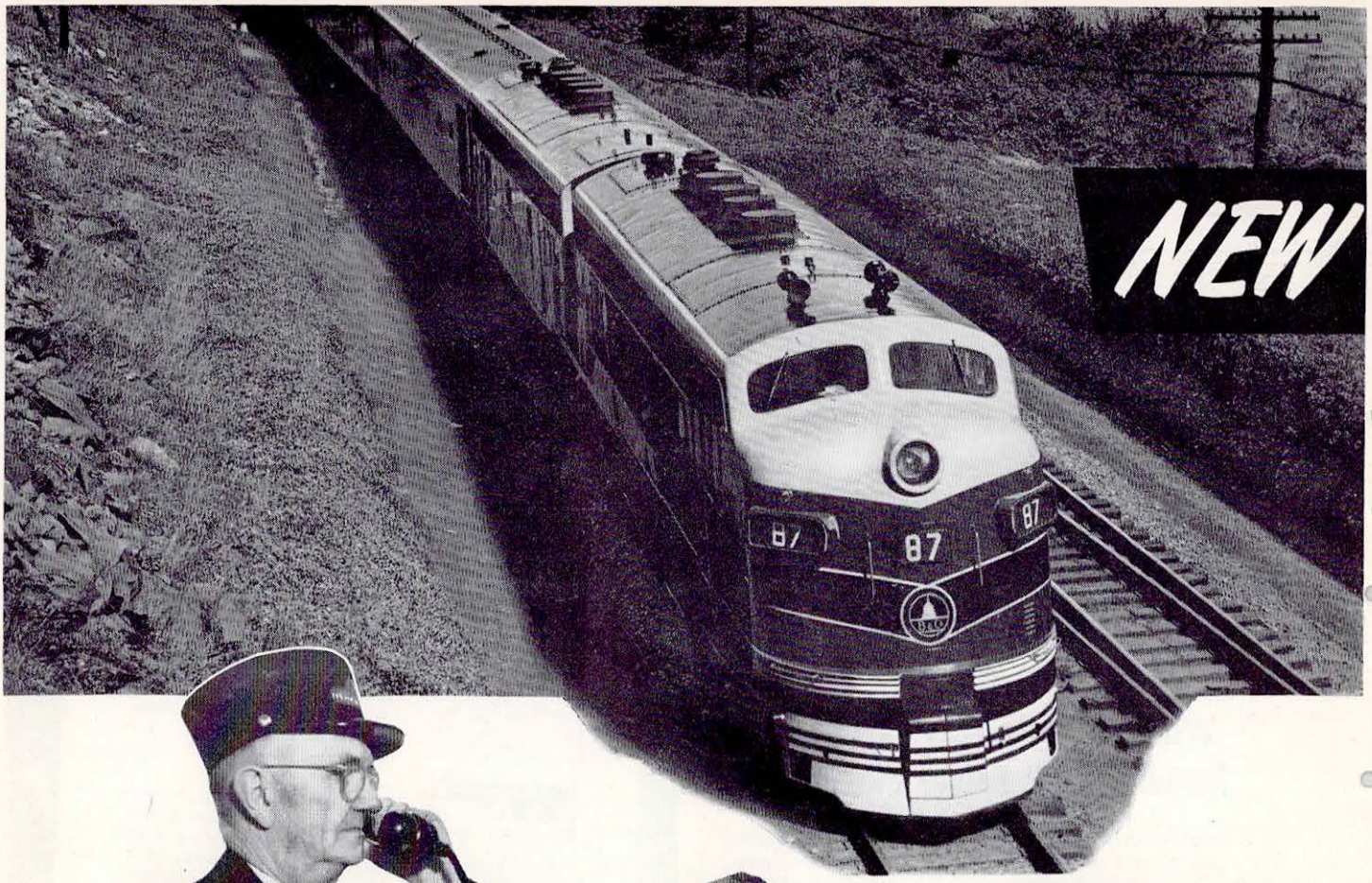
- ( ) GEA-4671—Axle-driven Motor Generators
- ( ) GER-117—Loading Resistor For Testing Diesel-Electric Power Plants
- ( ) GEA-2292B—D-c Magnetic Crane Control
- ( ) GEA-4174A—Insulation-resistance Meter
- ( ) GEA-4140A—Vibration-measuring Equipment
- ( ) GEC-233A—Leak Detector Type H
- ( ) GEC-320A—Portable Dynamic-Balancing Equipment

Name_____

Company_____

Street_____

City_____ State_____



The "Columbian's" conductor checking with the engineer over his Automatic Electric Intra-Train Telephone from the conductor's office in the lounge car.

Mr. A. S. Hunt, chief engineer of communications and signals of the B & O, using an Automatic Electric Intra-Train Telephone in the baggage car of the "Columbian."

B&O Streamliner "Columbian"

FEATURES *Automatic Electric*

INTRA-TRAIN TELEPHONES

To insure safe travel at higher speeds, and provide greatest traveling comfort for passengers, the Baltimore & Ohio Railroad has equipped its new "Columbian" super streamliners with Automatic Electric Intra-Train Telephones.

Automatic Electric Intra-Train Telephones provide the quick, dependable contact between train crew and engine cab that is needed to maintain today's high safety standards. From the Intra-Train Telephone in his lounge car office, or at other convenient stations throughout the train, the conductor has means of instant contact with the head end in emergencies or for routine checks with the engineer.

Intra-Train Telephones are dial-operated like any conventional automatic telephone, and each station operates as a separate unit. Cars may be cut in or out or additional cars added as required. Only a six-wire train line is required, and 32, 64 or 110-volt d.c. power may be used. Furthermore, cars of any of these voltages may be used in the same train.

Why not consider including these modern operating safeguards and conveniences when planning new trains—or when modernizing older trains? Ask for complete details.

AUTOMATIC ELECTRIC

Makers of Telephone, Signaling and Communication Apparatus
Electrical Engineers, Designers and Consultants

Distributors in U. S. and Possessions

AUTOMATIC ELECTRIC SALES CORPORATION, 1033 W. Van Buren St., Chicago 7, U. S. A.
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Dalhart, Tex. Texan
Snow-Fight Cost Inequality Seen By Railroad Men
BY UNITED PRESS
The magazine "Railway Age"
Louis, Mo. Post Dispatch
March 6, 1949
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COSTS OF RAI CLEARING CITED
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Greeley, Colo. Tribune
Railroads Claim Hardest Blow from Blizzard
New York, Mar. 5.—The maga
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blizzard that engulfed the western
states.
"The railroads . . . did their own
snow-plowing, ice-breaking, and
ditch digging — with their own
equipment and at their own ex-
Oshkosh, Wis. Northwestern
CLAIMS RAILWAYS HIT HARDEST IN PAYING FOR WESTERN BLIZZARD DIGGING
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Greenwich, Conn., Time
Liquidating The America Middle Class
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"The middle class consists
roughly of that large number of
persons, who have brains enough
to make their incomes without
manual labor and who, having in-
family ranging from
ear (before
Waterville, Me., Sentinel
Railroads Did Big Job
The following editorial published in the Railway Age is of interest in two ways, it shows the tremendous job which was done in clearing the snow from ways and feeding the cattle and in some in the mid-west and the part the job:
ouri and
SPOKESMAN OF
RAILWAY AGE

When Railway Age says it— it's NEWS!

that's why as many as 544 publications with 22 million readers have quoted a single issue

Yes, *Railway Age* is one of the most quoted of business papers—more than all other railway papers put together, more than many publications serving much broader industries.

On March 5, for instance, *Railway Age* answered the question, "Who lifts the check for 'Operation Snowfight'?", in a typically hard-hitting editorial dealing with the cost to the railways of clearing the severe snows in the northwestern states last winter.

Over a hundred newspapers in 26 states with a total circulation approaching 4 million incorporated part or all of this editorial in their news columns; many discussed it editorially.

On another occasion, a single issue was quoted in 544 publications with well over 22 million readers.

None of these figures include listeners to several radio networks which have made use of *Railway Age* material.

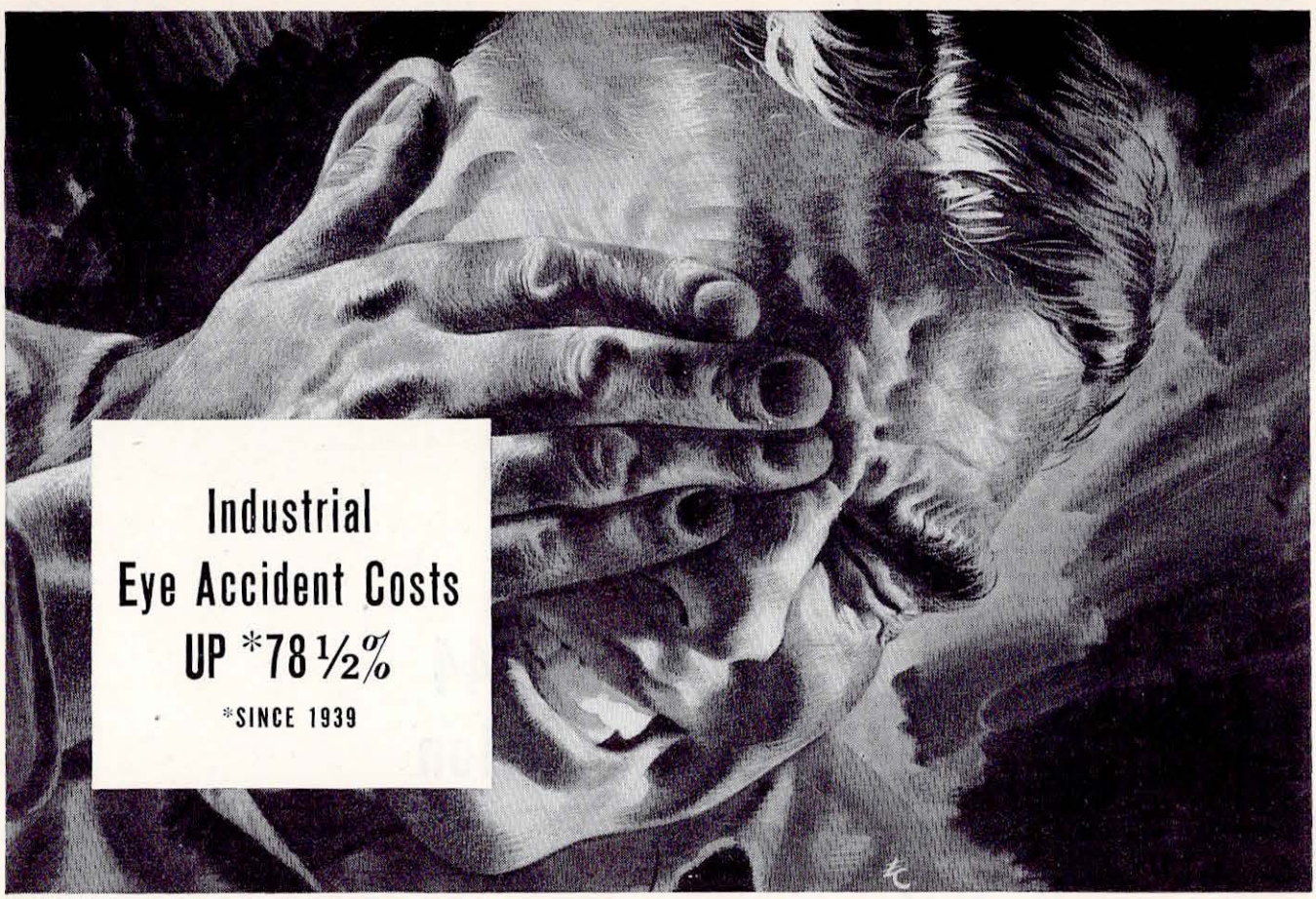
When *Railway Age* says it—it's NEWS: first, because of its prestige and authority as spokesman on railway matters since 1856; and secondly because *Railway Age* is the industry's authoritative weekly magazine that covers important railway developments while the news is hot . . . the only railway business paper that renders this service.

First in its field—in editorial service—in advertising pages

THE RAILWAY INDUSTRY SINCE 1856

ABC

ABP



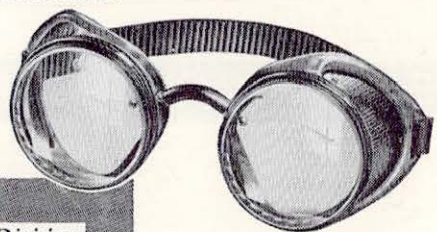
You don't need a buyer's market to cut this high cost! You can act NOW!

Your other high costs may or may not be "leveling off" but high eye accident costs are a tax no management need put up with.

Eyes are COSTLY targets when hit by particles that injure and blind. The average cost of a minor eye accident is over seven times the average cost of the goggle that would have prevented the injury. The ECONOMY of this protection is self-evident when it is realized that the cost of the goggle represents far less than two hours lost in productive time of the worker.*

Ask your nearest AO Safety Products Representative to show you how an adequate eye protection program *works* and how much it *saves!*

*Average price of goggles $2.30. Estimated 1949 average hourly earnings of factory workers $1.41 (Source: U.S. News)

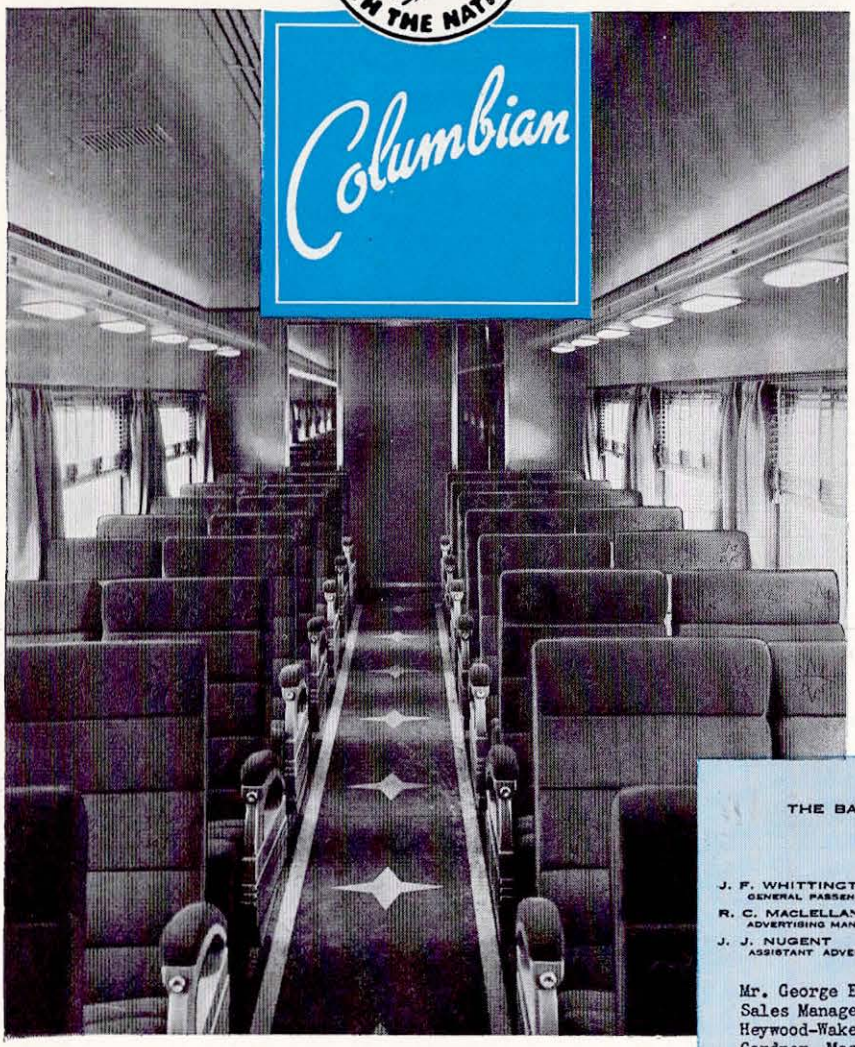


American Optical COMPANY *Safety Products Division*

Southbridge, Massachusetts
Branches in Principal Cities

THE NEW

LINKING 13 GREAT STATES WITH THE NATION
B&O
Columbian



THIS LATEST installation by one of the first railroads to swing to "Sleepy Hollow" Comfort carries its own recommendation that you will find it worth while to discuss Heywood-Wakefield seating in connection with your own railroad's current modernization program.

Heywood-Wakefield model 820 seats bring "Sleepy-Hollow" Comfort to the coaches of this new edition of the B & O "Columbian."

"FURTHER COMMENDATION" FOR "Sleepy Hollow" COMFORT

HEYWOOD-WAKEFIELD
EST. 1826
REG. U. S. PAT. OFF.

Transportation Seating Division
Gardner, Massachusetts

THE BALTIMORE AND OHIO RAILROAD COMPANY
TRAFFIC DEPARTMENT
BALTIMORE, 1, MD.

J. F. WHITTINGTON
GENERAL PASSENGER TRAFFIC MANAGER
R. C. MACLELLAN
ADVERTISING MANAGER
J. J. NUGENT
ASSISTANT ADVERTISING MANAGER

April 22, 1949

Mr. George E. Cornwall
Sales Manager
Heywood-Wakefield Co.
Gardner, Mass.

Dear Mr. Cornwall:

Just a further word of commendation about your new type "Sleepy Hollow" coach seat.

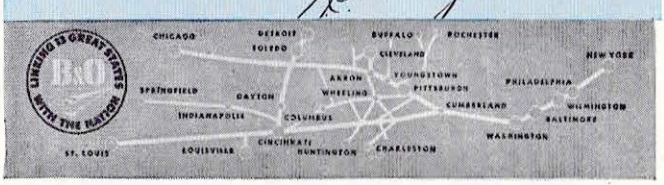
Several years ago, when we were building our Cincinnatian, we were so impressed with the advantages of "Sleepy Hollow" coach seats that we specified them for this new train. That decision proved to be a wise one. The Cincinnatian has been in service over two years and our passengers are most enthusiastic about the comfort of these seats.

When the question of coach seats for our new Strata-Dome coach streamliner - the New Columbian - was being considered we again specified the "Sleepy Hollow" type. We were confident our past experience fully justified that decision.

We sincerely believe that your company has made an outstanding contribution to the comfort of railroad coach travel.

Sincerely,

J. F. Whittington



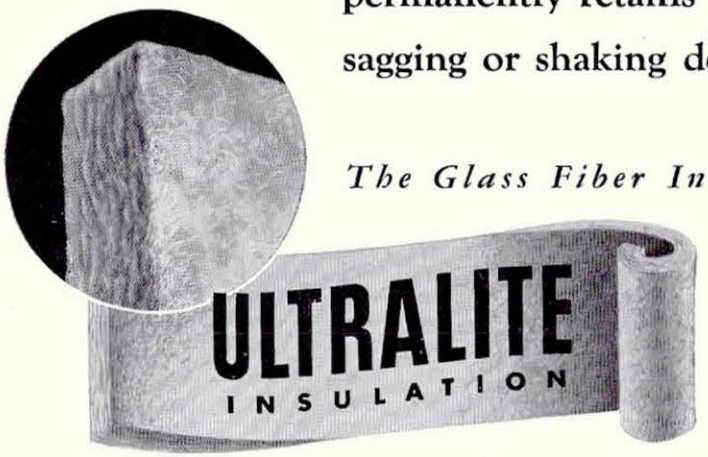
insulated for GOOD!

CARS OF THE

B&O *Columbian*

ARE EXCLUSIVELY INSULATED WITH G-B ULTRALITE...

...a foresighted feature installed by the Pullman Standard Co. It means complete unvarying insulating efficiency for the life of each car. This is because, among other advantages, ULTRALITE is dimensionally stable. It permanently retains its shape—thus preventing settling, sagging or shaking down in service.



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- Permanent
- Dimensionally Stable
- Vermin and Rodent Resistant
- Unusually Lightweight
- Fire Proof
- Vibration Proof
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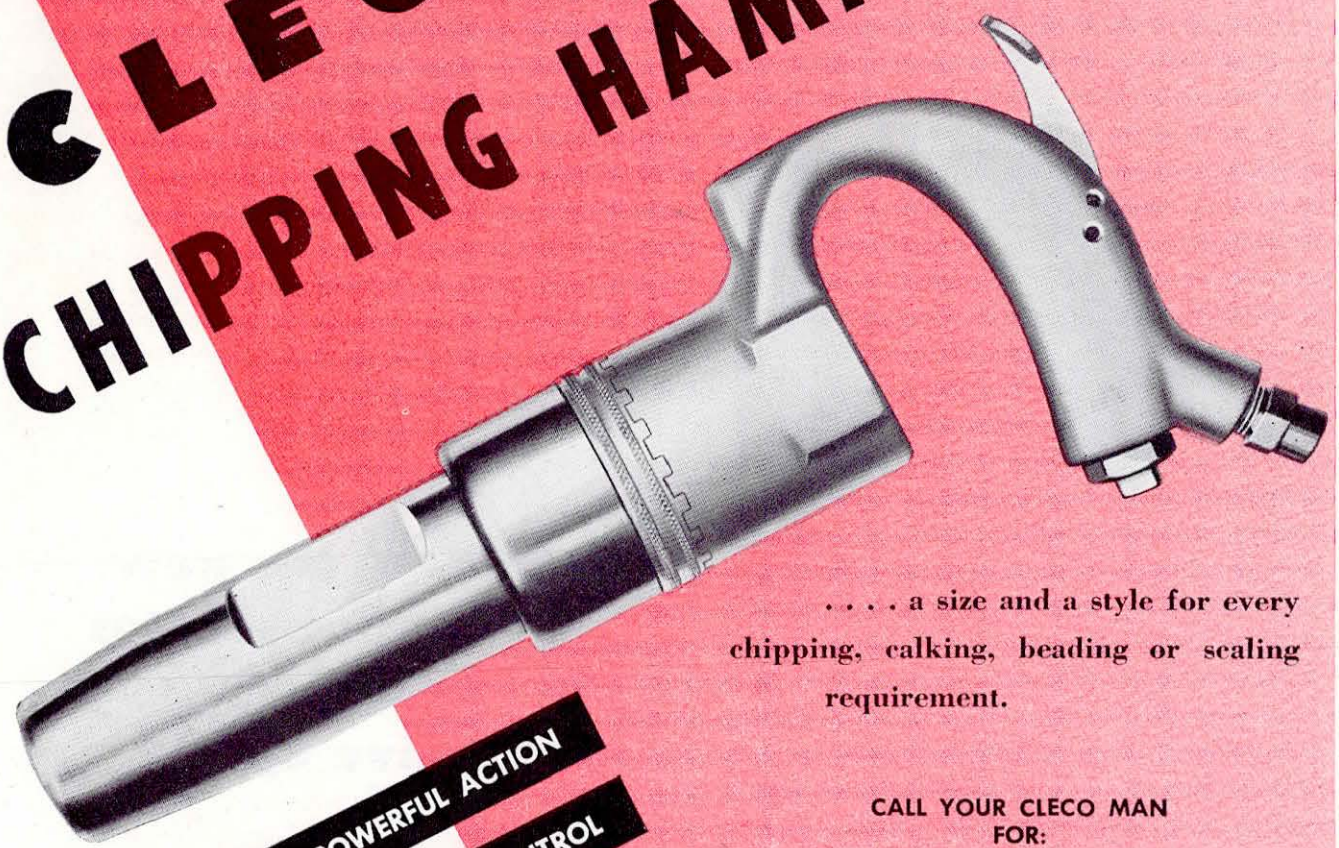

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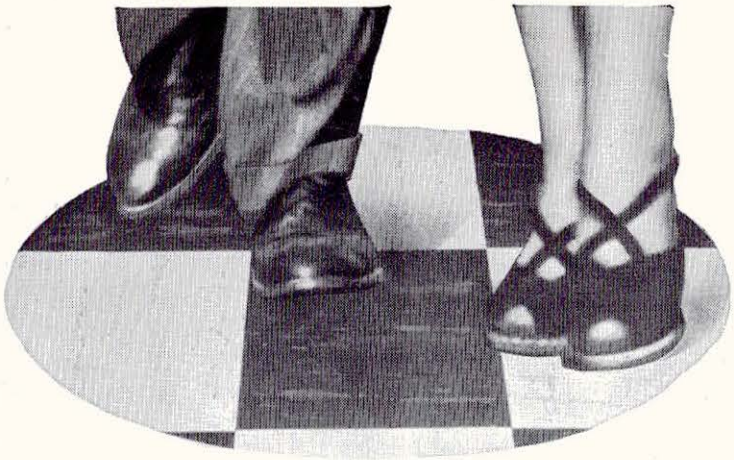
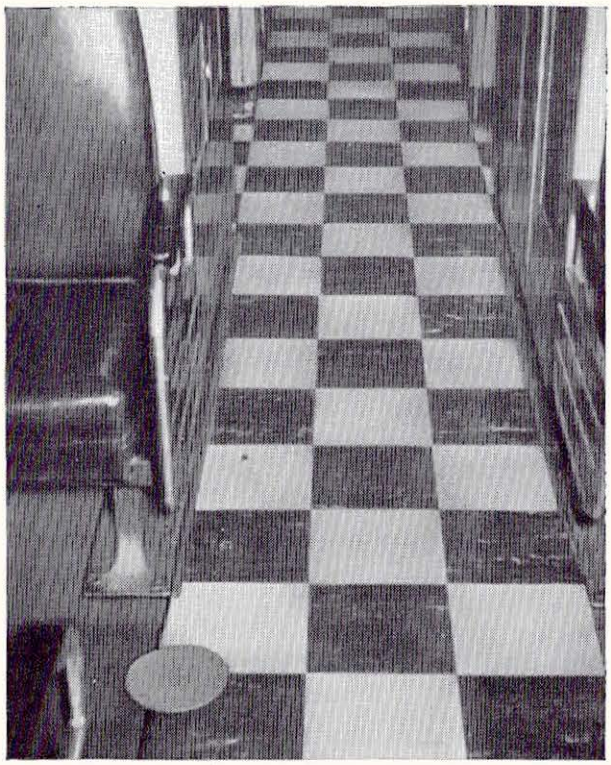
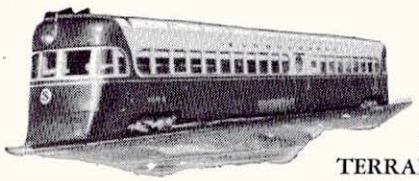
TROD ON BY 400,000 PASSENGERS...





Close-up of new Terraflex floor tile used in streamlined passenger motor car of New York, Susquehanna and Western Railroad shows little scuffing or wear after approximately 16,000 passengers a month used it for 26 months.

Terraflex, the new J-M plastic asbestos floor tile won't give up!



Here is the ideal flooring for passenger cars! It is a plastic asbestos tile called TERRAFLEX—an entirely new type decorative floor covering pioneered and developed by Johns-Manville.

Installed in the car above, Terraflex shows no signs of giving up after 26 months of service. During this time, some 400,000 people trod this car's aisles—a figure based on counts made from passenger train performance reports of the railroad.

The reason Terraflex stands up in such service is found in its remarkable characteristics. It is unusually resilient and soft under foot. It resists fire, cigarette burns, scratches. It is unaffected by greases, oil, alkalis, and mild acids. Laboratory and wear tests have shown that it has two to three times the abrasion resistance of standard asphalt tile.

The colors of this new J-M flooring are clearer, brighter and more stable than ever before obtained in a resilient flooring . . . and its flexibility is a decided advantage in preventing "lifting" due to working of the car floor. For further information, write Johns-Manville, Box 290, New York 16, New York.

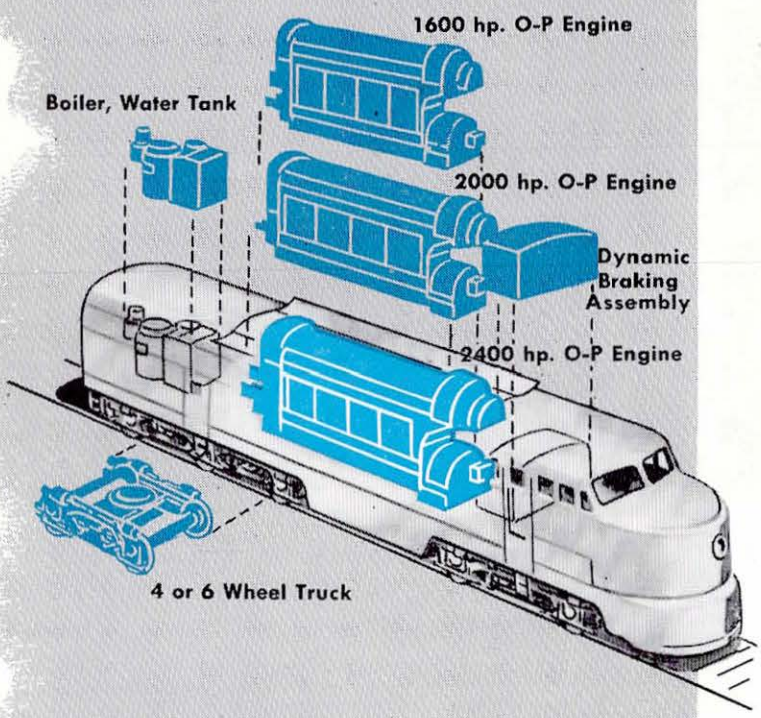
Johns-Manville *91 YEARS OF SERVICE TO TRANSPORTATION*

Everything for finer performance

You get...

Maximum Interchangeability of Parts

with "C" Line Locomotives...



Another point of superiority of FAIRBANKS-MORSE Consolidation Locomotives

Whether for passenger or freight service, the locomotives in the Consolidation Line are made up of like components: *This permits interchangeability of parts to a greater extent than with any other line of diesel locomotives!*

For the first time, in the "C" Line, sub-assembly construction has been completely adapted to locomotive design. Simple, standard "packaged" units—engine, dynamic braking, compressor, oil filter and cooler, boiler, water tank, gears and electrical assemblies—are assembled on the production floor. These are installed—in the proper combination—in a standard car body to give a locomotive of the desired characteristics. All units are interchangeable with like units; all connections are standard.

Think what this flexibility means in getting locomotives with the horsepower, gear ratio, tractive effort, boiler and braking facilities your road services demand. Think what this does to reduce maintenance, parts stocking and shopping expense! For more details, write Fairbanks, Morse & Co., Chicago 5, Ill.

When it comes to locomotives...

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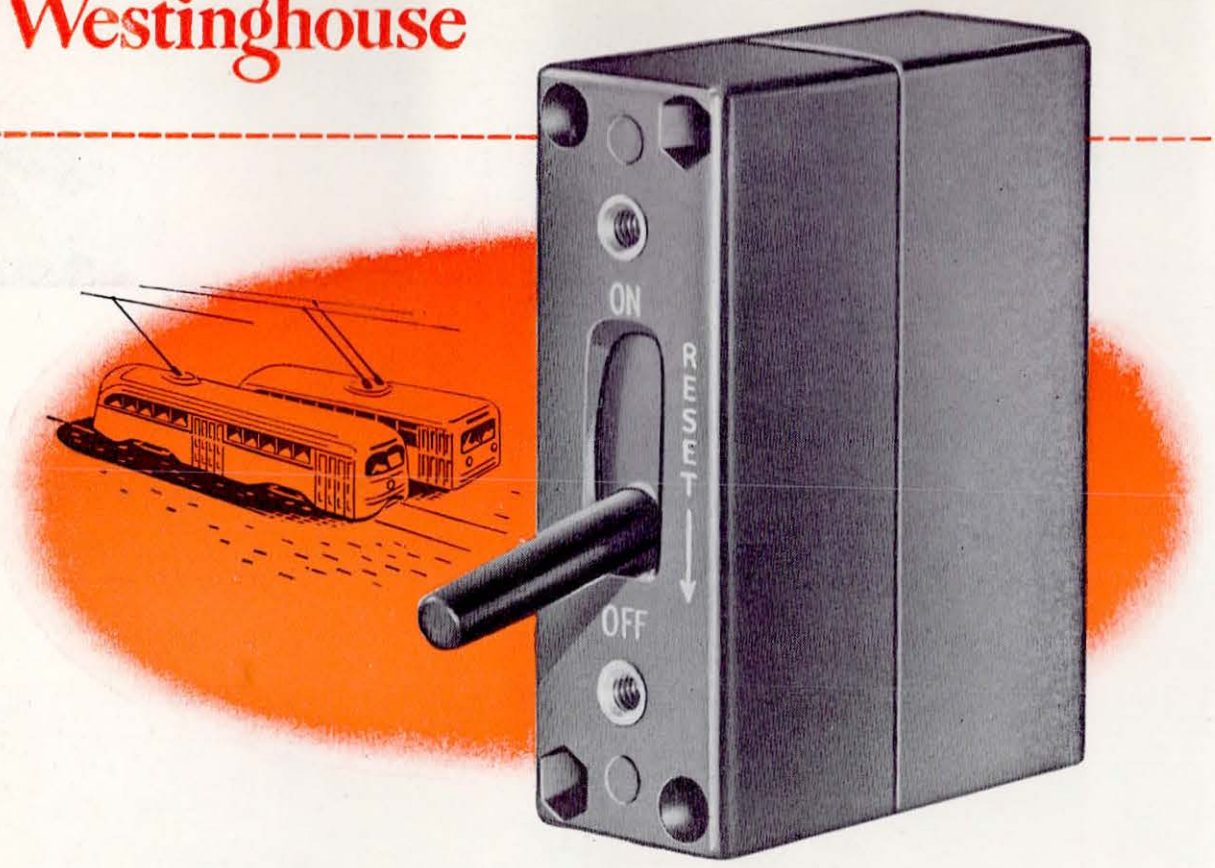

Announcing the P-1

A SHOCK RESISTING BREAKER

for transportation vehicles

Here's a rough-riding watchman for mobile electrical circuits. It's the new P-1 Circuit Breaker, a tough, dependable, shock-resistant protective device for transportation vehicles.

The P-1 Breaker trips instantly on dangerous overloads but is not affected by common vibration and shock conditions . . . an advantage which adds up to an important savings in terms of less servicing per passenger mile.

P-1 Breakers combine a switch and protective device in a single compact enclosure. When grouped on panelboards, they provide a convenient, space-saving means of controlling a variety of electrical circuits in streetcars, trolley coaches, rapid transits and railroad cars. And they more than pay for themselves in eliminating fuse replacement costs.

For a longer look at the breaker that will help to keep your equipment "on the move", ask for Booklet B-4081. Call your nearest Westinghouse office or write to Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pa. J-60702

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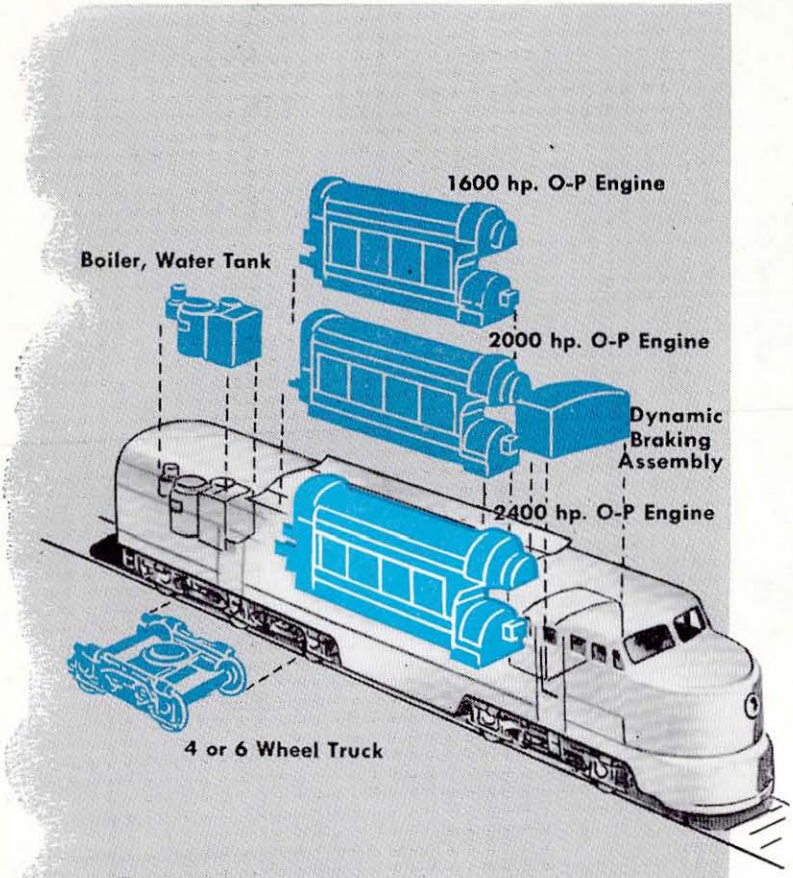
CIRCUIT BREAKERS

Everything for finer performance

You get...

Maximum Interchangeability of Parts

with "C" Line Locomotives...



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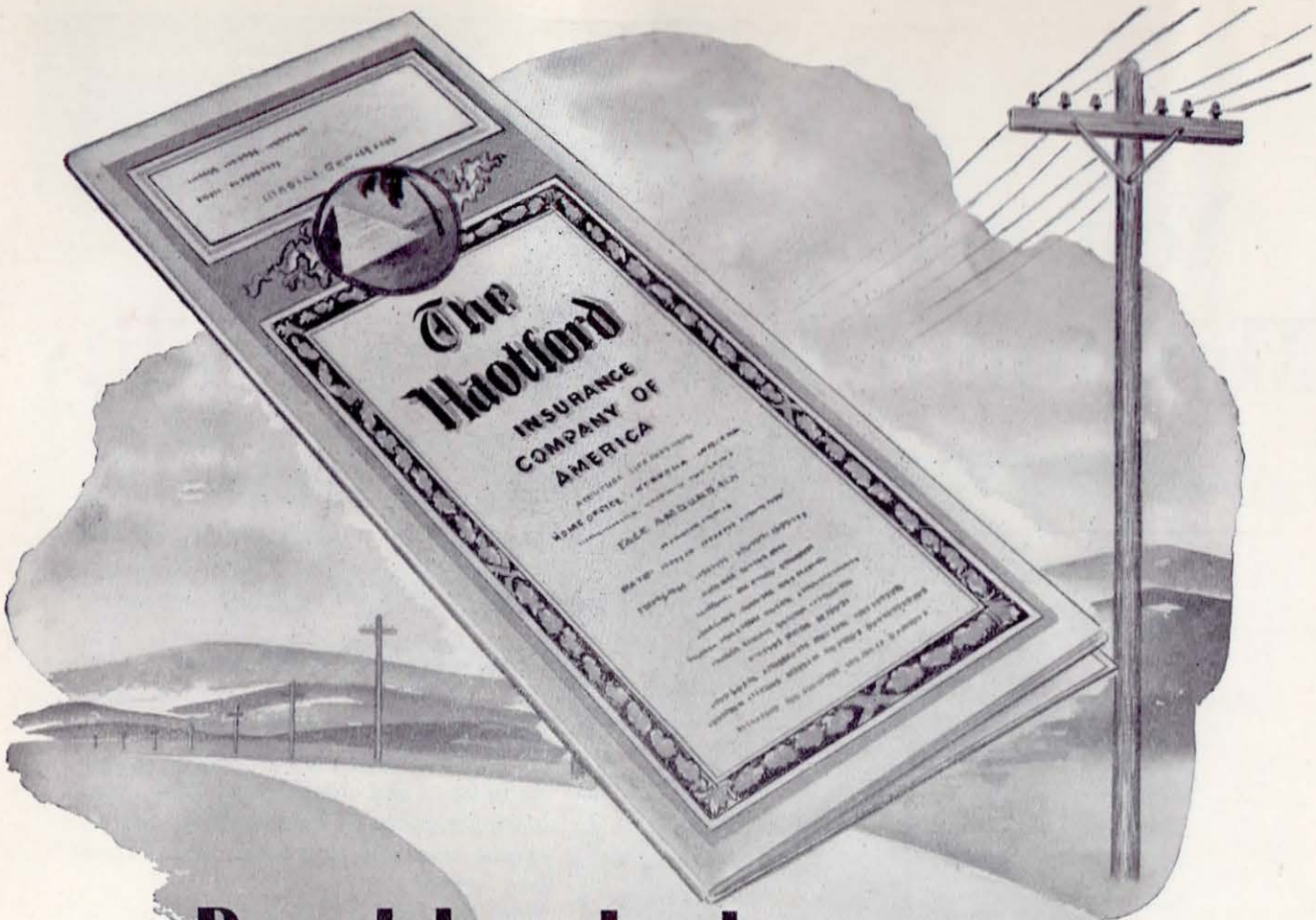

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When you specify Penta Preservative for your poles, crossarms or other timber, you are making doubly sure of lasting satisfaction.

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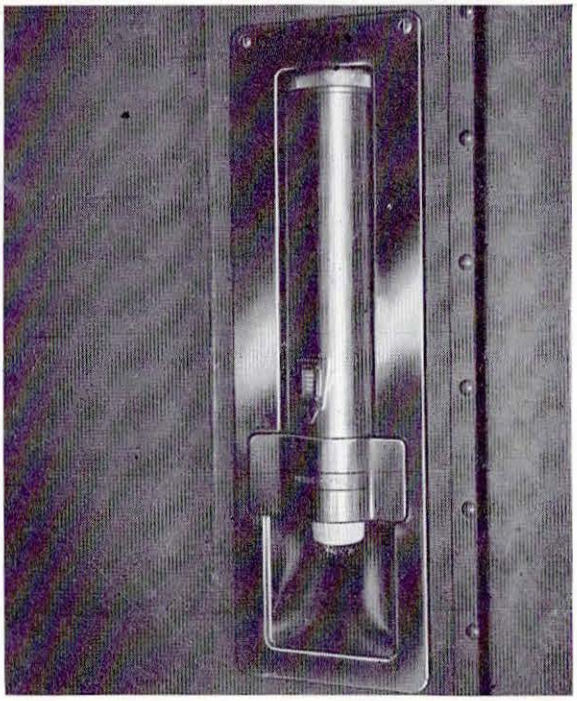
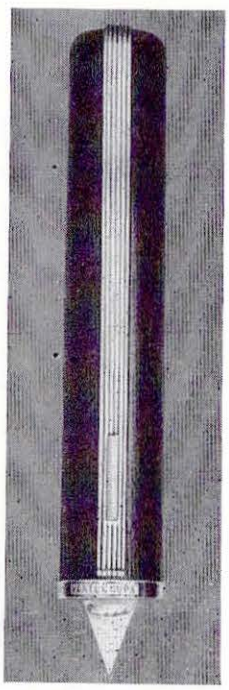
Yes . . . the *new* Southern Belles now in KCS service between Kansas City and New Orleans extend the best of that famous southern hospitality . . . including the sanitary convenience of DIXIES.

KCS . . . and many other leading railroads . . . appreciate the multiple advantages of Dixie Cup Service in modern railway equipment.

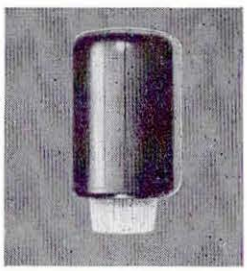
From the handsome, recessed dispenser to the handy, space-saving dispenser for roomettes and compartments, Dixie Cup Dispensers are carefully designed to add the final touch to passenger appointments.



DIXIE RECESSED DISPENSER . . . beautiful satin-chrome finish; fits flush with bulkhead. Takes BOTH flat-bottom Dixies and cone-shaped Vortex Cups in large and small sizes. ONLY Dixie Dispensers provide interchangeable cup adapters for dual advantage.



STREAMLINER . . . trim, smart, quickly mounts anywhere. Unbreakable plastic window shows when it's time to refill. Holds flat-bottom Dixies or cone-shaped Vortex Cups . . . either large or small sizes.



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On the B & O's New COLUMBIAN

● Famous trains feature NP Automatic End Door Operators because railroad officials are quick to appreciate the advantages of this modern method of door control. Passengers appreciate the convenience of doors that open safely and surely at the lightest touch, then close gently behind them. Operating and maintenance personnel approve the sturdy simplicity of the compact door-operating mechanism . . . and its reliable, trouble-free performance.

NP Automatic End Door Operators are adaptable to new or remodeled coaches, with swinging or sliding doors. Their operating cycle can be pre-set to meet various timing requirements. And they are backed by the complete manufacturing and service facilities of the National Pneumatic Company, for nearly fifty years the outstanding leader in door control equipment.

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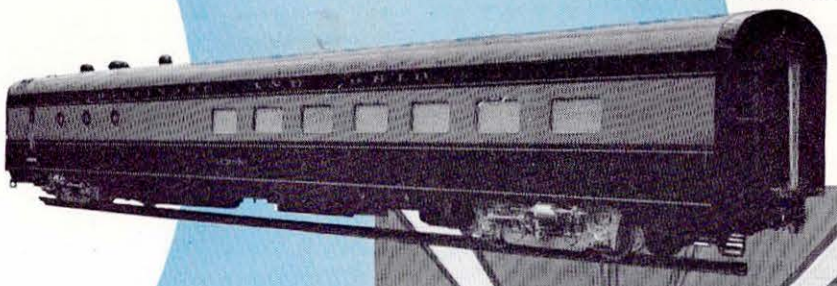

DINER

Photos Courtesy Pullman-Standard Car Mfg. Co.

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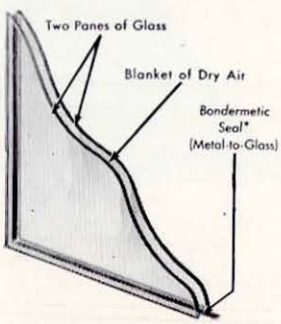
The show spot of the B & O's New Columbians —the Strata-Dome cars — carries 52 units of *Thermopane**.

This overhead use of *Thermopane* is a real test of satisfactory service. Here temperature changes are most acute and the desirability of clear, unobstructed vision is greatest. Here glass should not fog up with excessive condensation. With *Thermopane* there's no water between panes, because the air space is desert-dry and hermetically sealed.

Thermopane gives all these advantages at lower maintenance cost. There are only two surfaces that ever need to be washed—the exposed surfaces. No costly removal or opening operations are required for cleaning.



Cutaway view of *Thermopane*

Truly, *Thermopane* —the double-glass unit with sealed-in insulation —is *made* for railroad service. May we give you facts and figures?

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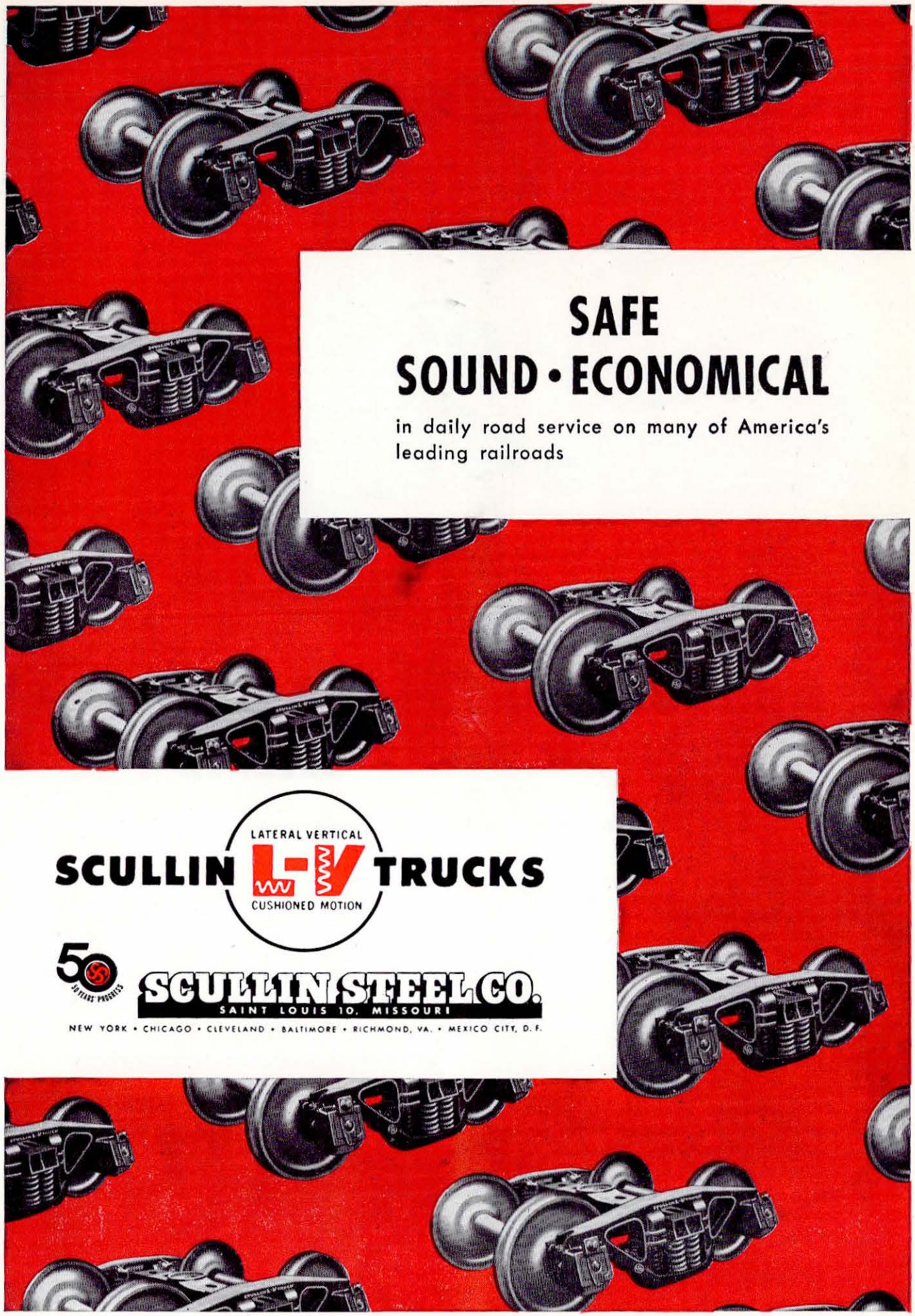

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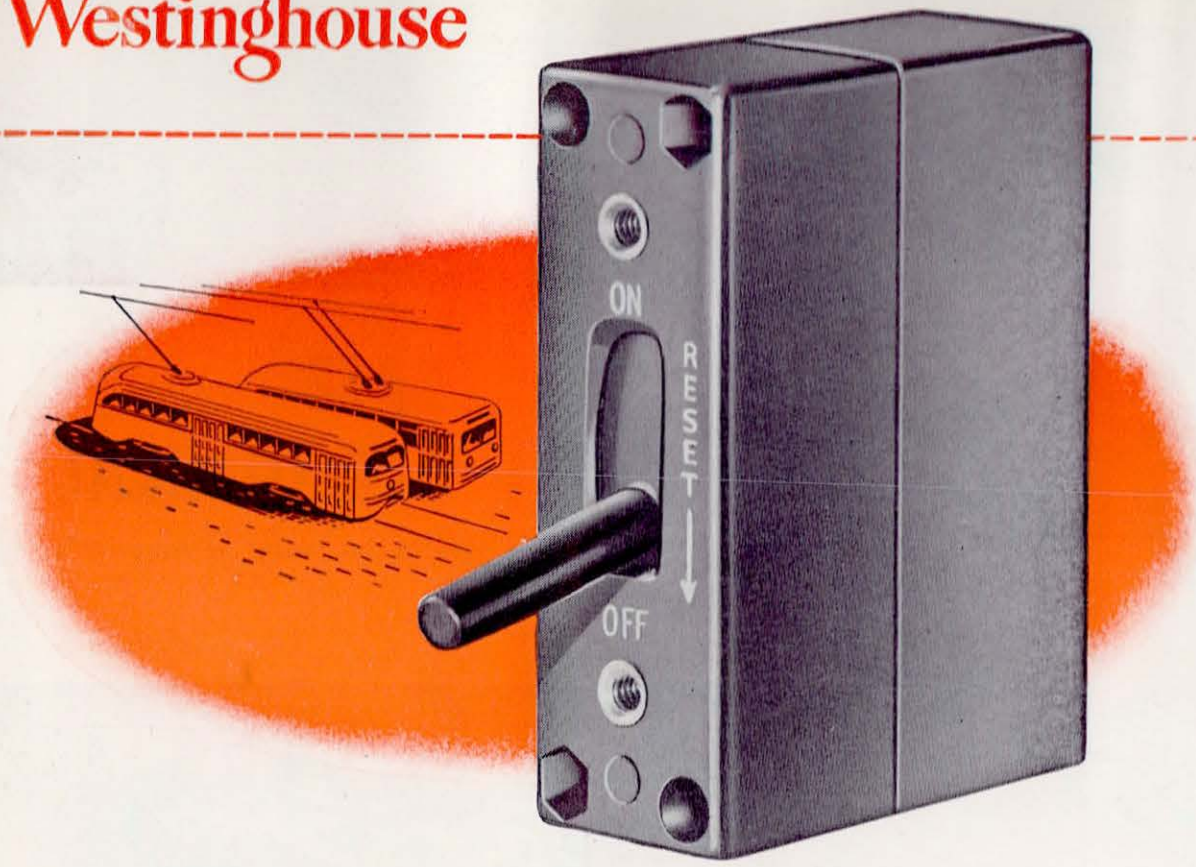

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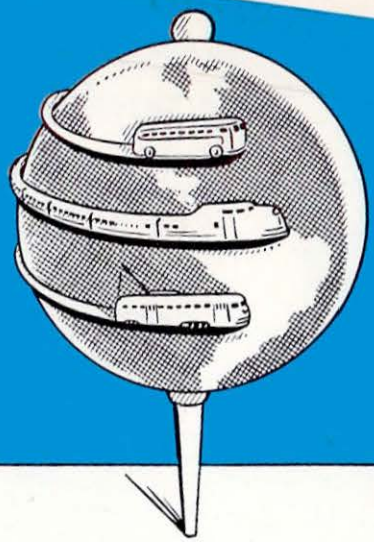
CIRCUIT BREAKERS



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MINNEAPOLIS **Honeywell**

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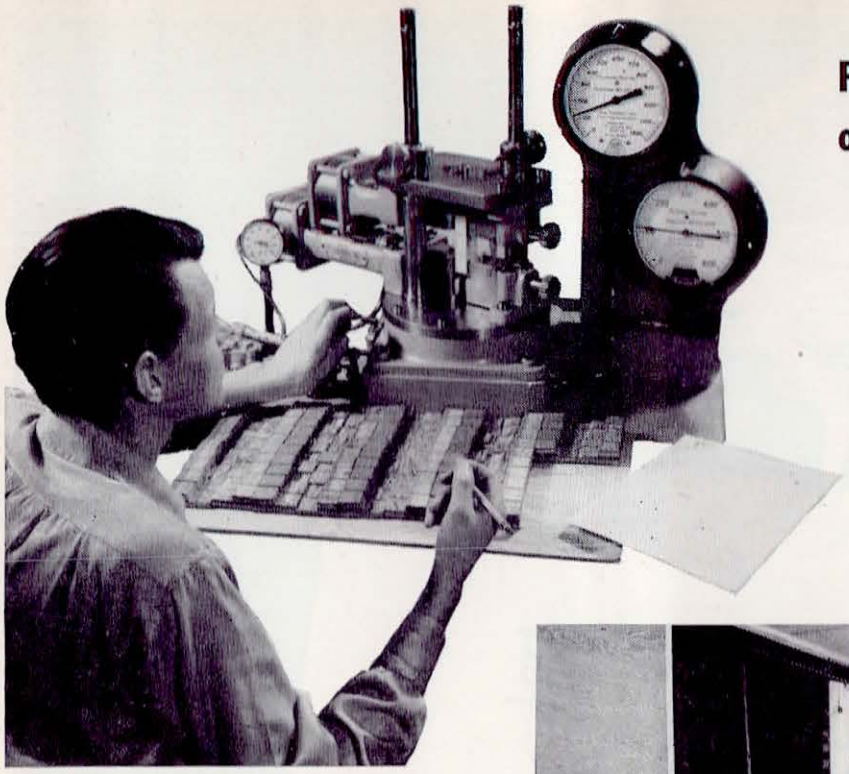

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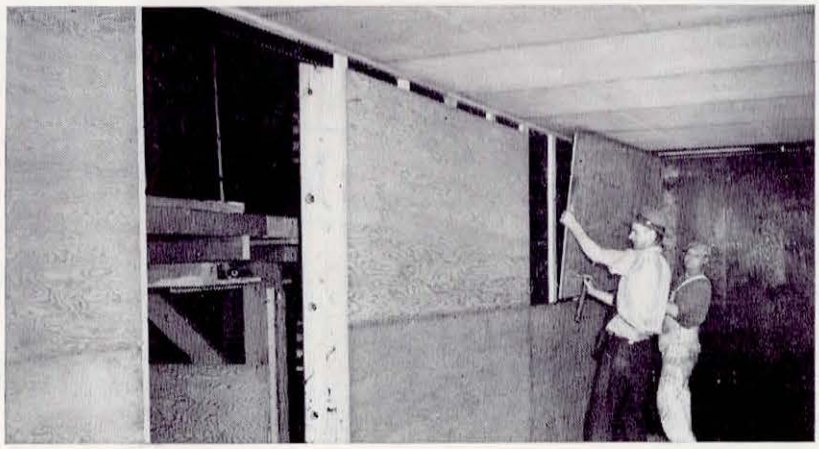

RIGHT:
Workmen placing 9/16" Exterior plywood lining panels in one of the 1,250 reefers built for Pacific Fruit Express by the Pacific Car and Foundry Company, Renton, Washington. Behind the lining is an air chute. Space at top of the wall is an air vent for circulation. Exterior plywood was used as lining, ceiling, for bulkheads and bunkers.

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EXT-DFPA Exterior-type Douglas fir plywood—made with completely waterproof phenolic resin adhesive, especially for permanent exposure to weather and water—has been used in the building or rebuilding of thousands of railroad cars—from boxcars to cabooses—for the exteriors of stations, work buildings and other structures. Every Exterior-type panel manufactured under industry quality control is identified by the EXT-DFPA "grade-trademark" shown above.

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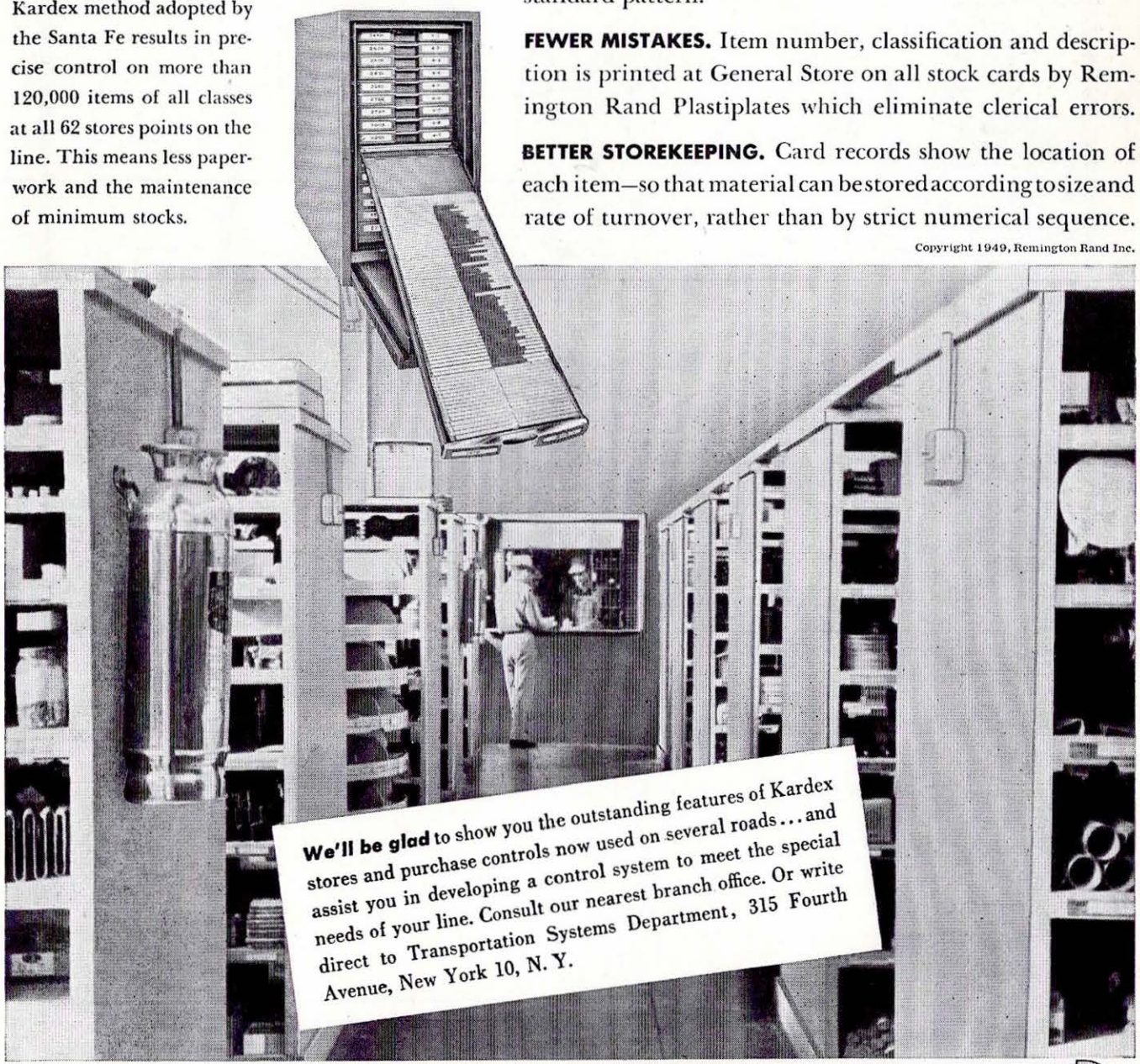

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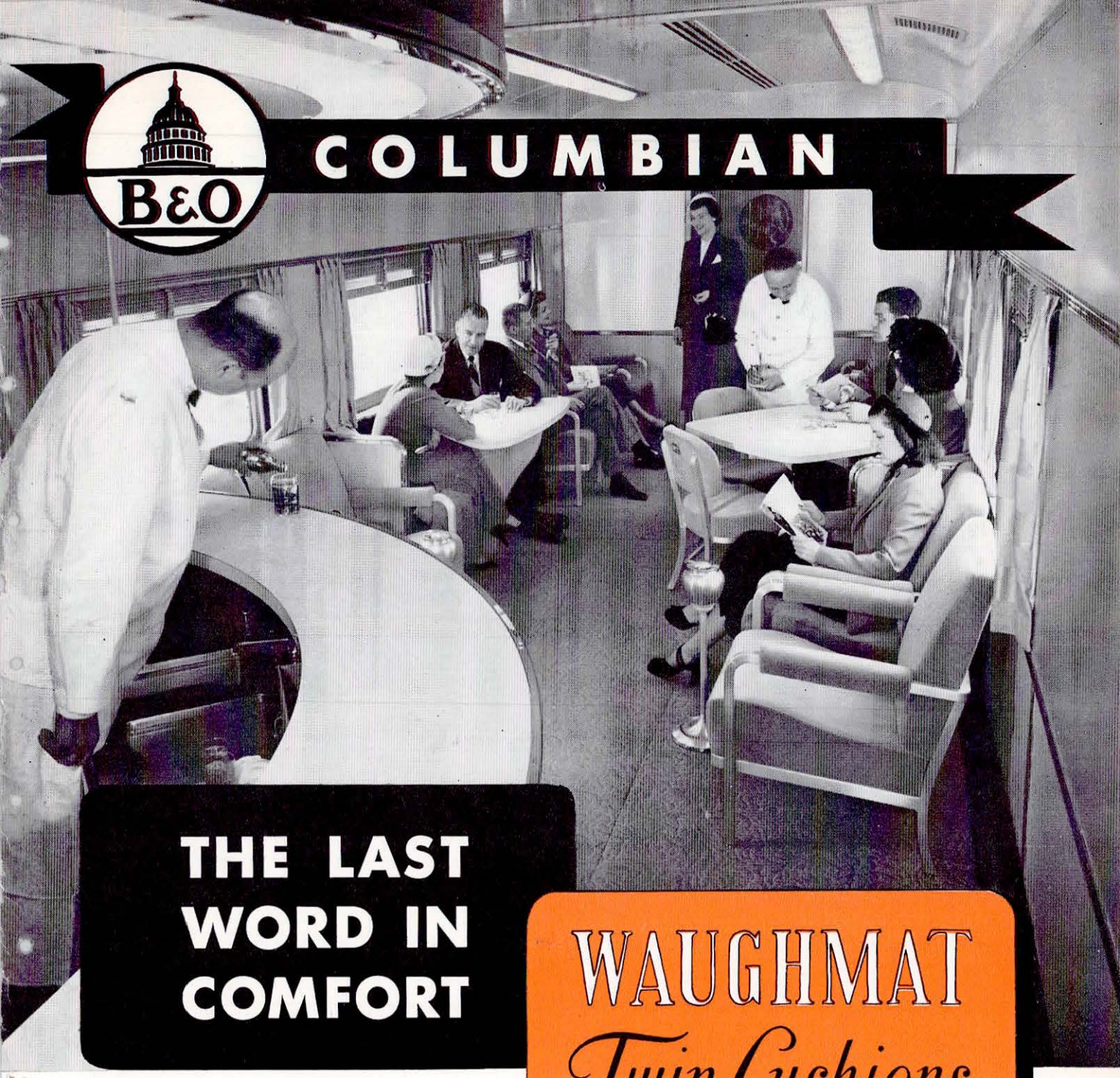

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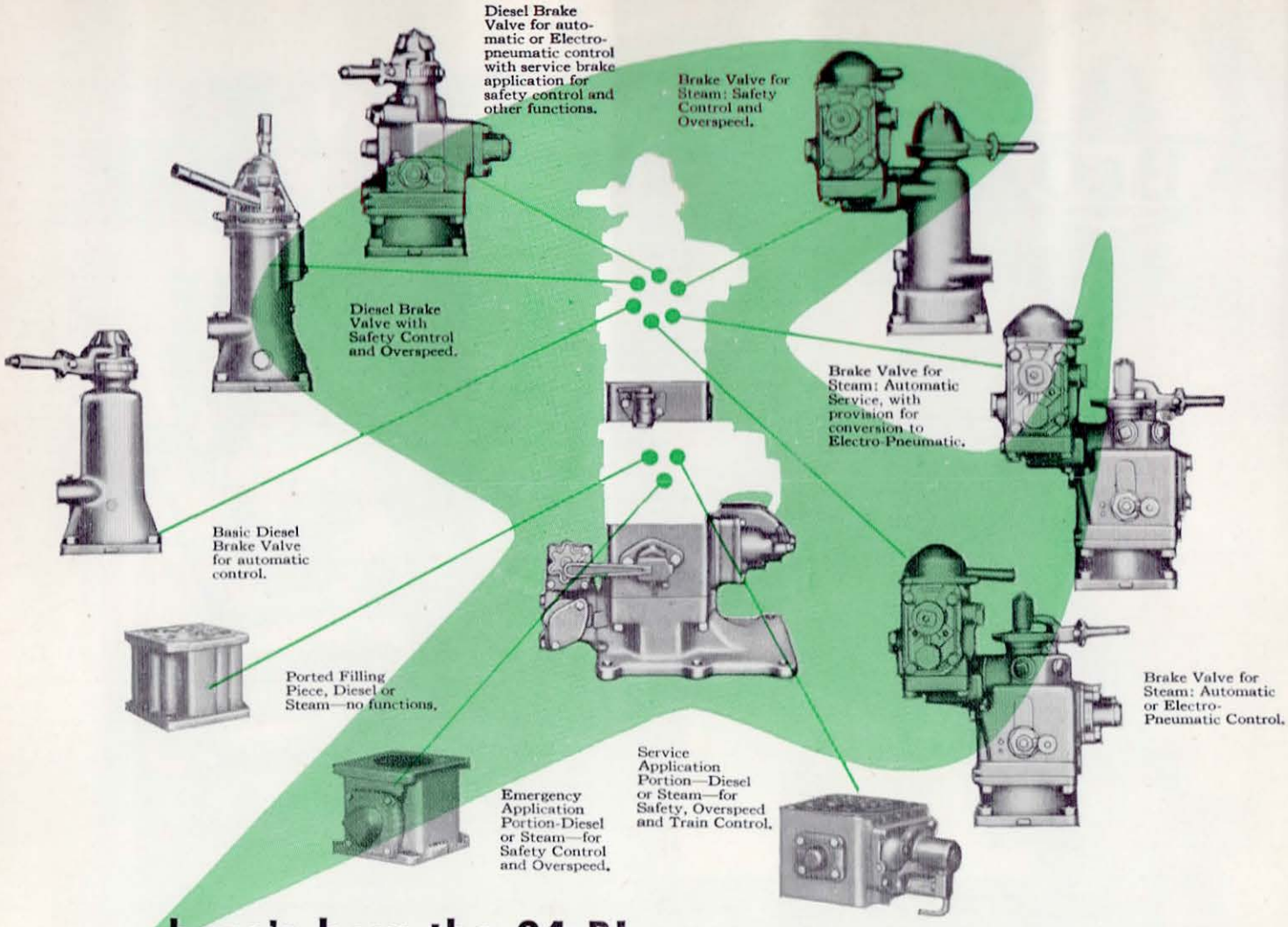
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Vol. 126, No. 25 June 18, 1949

RAILWAY AGE

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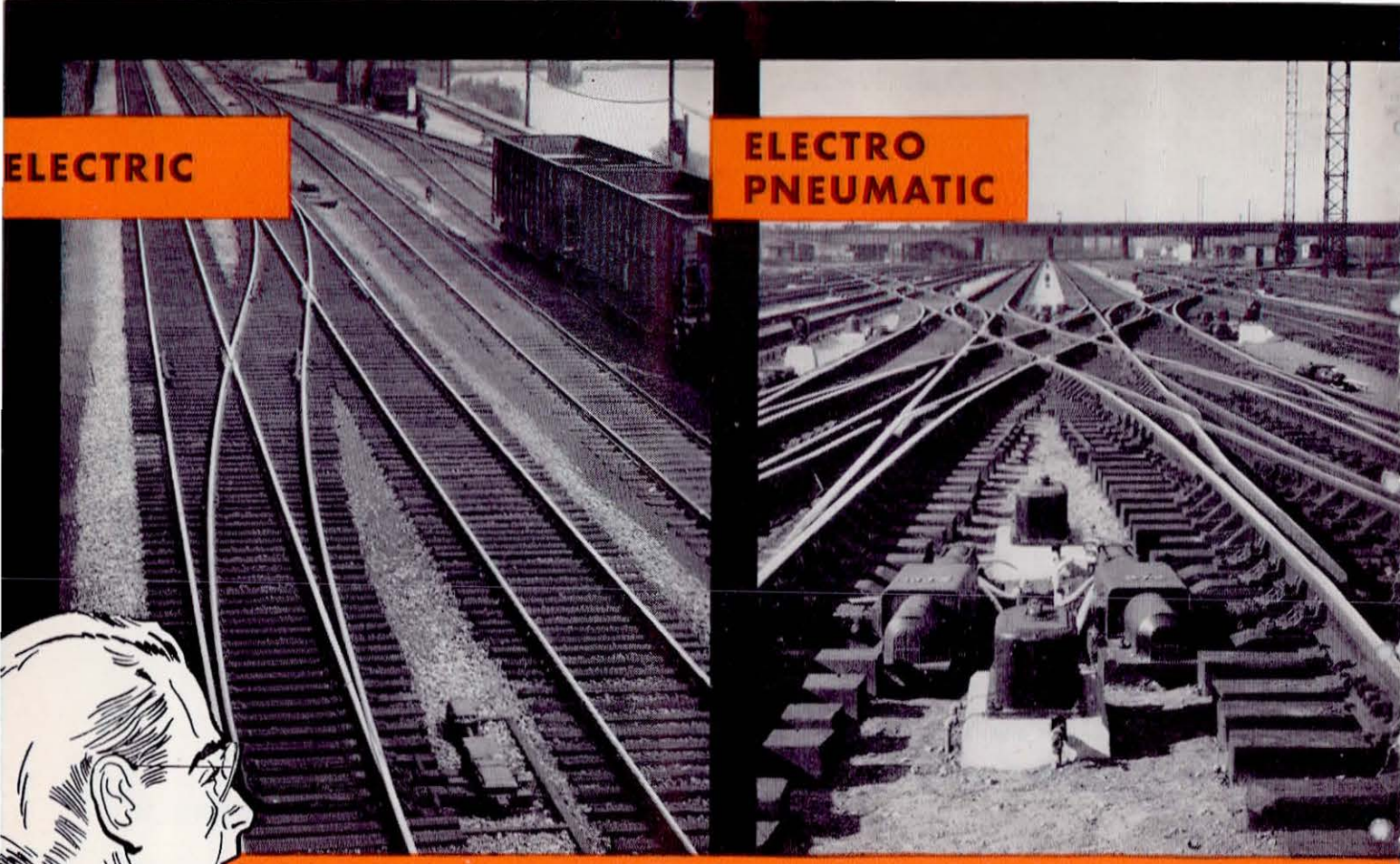

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WEEK AT A GLANCE

CAPITAL EXPENDITURES—AND OTHER SUBJECTS: Gross capital expenditures by Class I line-haul railroads in the first three months of 1949 exceeded $342 million—26.5 per cent over corresponding expenditures for the first quarter of 1948—according to the latest "Monthly Comment" of the Interstate Commerce Commission's Bureau of Transport Economics and Statistics. The "Comment," summarized on pages 50 and 51, also covers a variety of other subjects, such as payments for lost or damaged freight, shifts in railway motive power, traffic and earnings for the first four months of 1949, and 1948 traffic and earnings of freight forwarders and truckers.

ANOTHER VIEW OF FREIGHT CLAIMS: The "Monthly Comment," on page 50, dealing largely with the past, presents a gloomy view of the freight-claim situation. A more optimistic picture is given in a report, which looks ahead as well as behind, submitted to A.A.R. member roads by the association's Freight Claim Division on June 14. This latter report is briefly summarized in the News pages.

FOUR OUT OF FIVE: *Railway Age* has frequently asserted, and railroad spokesmen have generally recognized, that one of the railroads' greatest needs is money for improvement of their fixed properties. And one of their greatest problems is the existence of public policies which prevent them from obtaining that money through sale of new securities or from any other source except their limited earnings. The results of this situation are graphically pointed up by the latest "Monthly Comment," which shows that four dollars out of every five spent by Class I railroads for capital improvements in the first quarter of this year went for equipment—and only one dollar out of five for improvements to track or other fixed property.

NO PROBLEM FOR COMPETITORS: But the railroads' truck competitors—whose "tracks" are public highways—don't have any comparable problem in finding money for "capital improvement" of those "tracks." Through their top policy-making group—the socialistic National Highway Users Conference—they just plan bigger and better raids on public treasuries. Our leading editorial (page 41) discusses the socialistic nature of some of that body's proposals.

EXPEDITING FREIGHTHOUSE OPERATION: In these days of intensive competition in transportation, any measures which improve the railroads' ability to meet that competition—by improving, for example, their ability to handle freight carefully and expeditiously—are worthy of special consideration. One such measure, a Link-Belt overhead truck tow system, has recently been installed by the Southern Pacific at its Houston, Tex., freight station. The results, as described in the illustrated article beginning on page 56, have been to speed up operation, reduce costs and eliminate congestion in a 22-year-old freighthouse built to serve a community which has since grown greatly both in size and industrial activity.

"MAN BITES DOG": If, as the old saying goes, a man biting a dog is news, then the construction of a waterway by local enterprise, and without federal funds, ought to rate all sorts of headlines. But that's exactly what's going on down in Pascagoula, Miss. The story, on page 60, is a refreshing relief from the yowls for "federal aid"; it's a distinct relief from, and a sharp contrast to, such socialistic, "something-for-nothing" philosophies as that of the National Highway Users Conference, outlined in our leading editorial.

PLAYING FOR HIGH STAKES: The old role of railroad agricultural agents as builders of traffic may have declined somewhat in relative importance in recent years, but they now have a bigger and even more important job as builders of railroad good will in rural territories. Why this is so, and what agricultural agents can do about it, were explained by Edward J. Leenhouts of the New York Central at the recent meeting of the American Railway Development Association. Mr. Leenhouts' remarks are abstracted on page 55.

"THE DISTRESSING PART"—about highway competition "is that trucks, by and large, are not in competition with the railroads as a whole, but compete for business only where it offers the most lucrative income." So said a Lackawanna officer at Paterson, N. J., this week. And P. C. Armstrong, C.P.R. economist, recently made a clear, simple and powerful exposition of that nibbling process by which government-subsidized trucks take from the railroads only the best traffic. These identical views on this increasingly serious situation are summarized in the News pages.

SAVING TIME AND MONEY: Both of those worthy objectives have been achieved by the Chicago South Shore & South Bend, through installation on 77 mi. of its electrified line of a new space radio relay system, believed to be the first of its type authorized by the Federal Communications Commission. The installation, and its operation and advantages, are described by P. J. Corporon, assistant superintendent way and structures of the C.S.S. & S.B., in an illustrated article on page 52.

NEW "COLUMBIANS": As previously reported in the News columns of *Railway Age*, the Baltimore & Ohio has recently put into service new equipment for its all-coach Washington-Chicago "Columbians." The new cars, built by Pullman-Standard, are both described and illustrated in a feature article which starts on page 44.

ANOTHER OKONITE PLUS VALUE...

● RUBBER FILLERS are now supplied as regular practice in Okonite multi-conductor railroad signal and control cables. Results under actual service conditions — as well as from exhaustive laboratory tests — show that rubber fillers offer several important advantages over the jute fillers commonly used in these cables.

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HOW FORESIGHTED IS HIGHWAYDOM'S LEADERSHIP?

The top policy-making body of interests which exploit commercially the nation's highway plant is the National Highway Users Conference. It is headed by a manufacturer of automotive vehicles. It has on its board of governors three other such manufacturers and a miscellany of business leaders —none of them, so far as this paper knows, ever identified with any political movement frankly advocating, as a principle, so-called "planning," or the substitution of coercive tax-financing of economic services in place of the operation of a free market. Nevertheless, this Conference sets forth without equivocation its views—which are quite candidly socialistic, coercive and favorable to "planning"—in a pamphlet recently issued under the title "Planning and Financing Our Highways." These views it expresses, in part, as follows:

> "The people of this country must* have roads suitable for the movement of modern traffic with safety, economy and facility. . . .
>
> "These roads must in every instance be predicated on traffic needs*, and long-term rational planning surveys should point definitely to current and future needs. . . . Every state should have a long-range program of development, but such a program in all of its phases . . . must be consistent with and measured by the taxpayer's ability to pay†.
>
> "The revenues from special motor vehicle fees and taxes should be dedicated exclusively to highway purposes.
>
> "It is recognized that there are certain distinct benefits flowing from the availability, construction, improvement and use of highways [the beneficiaries cited being the nation, states and communities; business; other forms of transportation; landowners; and the actual users of the highways]. The recipients of these benefits have a definite responsibility for a share of the cost of highways.
>
> "The federal government should not collect motor vehicle use taxes or special excise taxes . . . since the government's obligation to carry mail and provide for the national defense makes federal highway aid a proper charge against general revenue."

Apply to Railroads Too

These expressions are indistinguishable from those put forward by advocates of socialized housing or socialized electric power. Highways—at least to the extent that they are built and used for long-haul transportation similar to that provided by the railroads—are "capital goods," in every way comparable to railroad tracks. The National Highway Users Conference does not assert that railroad tracks must be "planned" in advance by some far-seeing political body, or that the cost of them should be assessed

*Note the absence of any consideration herein to *economic* demand, i.e., the willingness of uncoerced customers to finance these facilities by their patronage, paying compensatory prices.—EDITOR.

†Under a system of economic freedom, prices are derived from the value of the service and its cost—not from "ability to pay."—EDITOR.

against a lot of "beneficiaries" besides the actual users, but arguments to this effect would apply with the same force to the railroads as to the highways.

The difference between political "planning" and the operation of a free market is that, under the system of economic freedom, political clairvoyants do not have to be called in to determine "needs" for new facilities, and to find people other than the users who can be burdened with the costs. Instead, society depends upon the alertness of some profit-seeking investor to guess what new facilities will earn the highest return, and to be induced thereby to provide them. No country ever placed so much reliance as this one did until recently—not in the wisdom and foresight of political planners but in the selfishness of "capital"—to foresee the people's wants and provide for them; and no other country ever had its economic wants so well cared for. That is the way the railroads were built and long-haul highways could be built in the same way—to the extent that actual economic demand exists for such facilities. By their opposition to toll-financing, the "Highway Users" seem to betray a fear that comparatively little such demand may exist.

"Benefits" and "Diversion"

Do the men who comprise the National Highway Users Conference suppose that highways to haul citrus fruits from Florida to New York and steel from Pittsburgh to Detroit can be provided largely at the expense of payers of federal income taxes, and that *railroads*, meanwhile, to move exactly the same traffic will continue to be provided and maintained by private capital? Are there "benefits" from the moving of such long-haul traffic as this by highway which justify levying a large part of the cost upon federal income-taxpayers and upon landowners, while no such "benefits" accrue when exactly parallel movements of freight are made by railroad?

Since the highways—with deceptively low rates because costs are borne only in part by highway users—are now attracting for long hauls practically all classes of traffic which move by rail, why should there be no "diversion," as the "Highway Users" insist, of highway fees to the payment of general governmental expenses? All tax payments made by the railroads are thus "diverted."

The profit-seeking investors of private capital have ceased offering funds for the improvement of railroad property (as distinguished from rolling stock) and for the replacement of worn-out plant. The only source of funds now available for these purposes is current railroad earnings. It is a serious question to what degree railroad managers are justified in sinking owners' money into replacing worn-out plant which public policy has never permitted to earn more than a pittance for the investors.

John Jewkes, whose book "Ordeal by Planning" provides timely warning from British experience of the injurious effect on all economic activity of invasion by the "planners," asserts that "in a free economy prices must be linked to cost." Elsewhere in the same work he says: "The market economy is simply a device for creating automatic regulations which will enable us to provide for physical needs by the most economical route, of pushing economic problems into a corner to be forgotten, like the thermostat in a house. . . ."

No other organization in the country is doing a more expert or timely job of inquiry into and dissemination of the principles which must underlie a free and prosperous society than the Foundation for Economic Education, which includes among its sponsors some of the same business organizations represented in the National Highway Users Conference. The Foundation has recently published a monograph entitled "Liberty—a Path to Its Recovery" by F. A. Harper. Mr. Harper discerns as the central principle of economic liberty "the right of a person to the product of his own labor," which implies the right to expend that product in whatever way he sees fit—that is, not having it taxed away from him for services that he would not voluntarily purchase. The author reminds us that "government is, by definition, design and intent, an agency engaged in force," and that any coercive power must be "viewed with suspicion." Decision of economic questions by majority vote, instead of in the market place, is simply a resort to the principle that "might makes right."

"Successful Parasitism"

Mr. Harper goes on to say, in effect, that forcing people to pay for economic services through taxation, whether they desire or use these services or not, is equivalent to destroying the "capitalist system." The government "becomes a grab-bag and one citizen justifies his becoming a parasite by observing that others are doing it. . . . The cardinal principle of successful parasitism is that the number of parasites must be kept low."

This paper suggests that the policy of financing long-haul highway facilities, advocated by the National Highway Users Conference (and which is in substance, the policy of highway finance in actual effect in this country) violates Mr. Harper's "cardinal principle of successful parasitism"—in that this policy is making it all but impossible for the railroad industry to continue to finance its essential service to the nation from voluntary private investment, based upon the industry's ability to collect compensatory charges from its customers.

It would be ironic in the extreme if America should lose its economic and political liberty largely because of the grasping myopia of the same group of men who are justly recognized as typifying the highest development of its industrial genius. History has, however, a way of playing such tricks.

COST OF THE 40-HOUR WEEK

Whatever adjustments are made in the maintenance-of-way departments of the railroads when the five-day week is put into effect, there is certain to be some additional cost. This outcome is inescapable unless there is resort to ruthless retrenchment, in which event it goes without saying that railroad property and service will suffer serious injury, in the long run. Such an expedient would prove ultimately to be very costly, although some bookkeeping "savings" might appear at first.

If the railroads, unlike government agencies, did not have to make ends meet, the simplest solution to the five-day-week problem, so far as it applies to the maintenance forces, would be merely to hire the additional men required to make up for the 20-per cent loss in man-hours, brushing off the additional cost as a matter for somebody else to worry about. Except possibly on a few of the more fortunate lines such a course is out of the question; on most roads it will be necessary to adopt measures to soften the the impact, financially speaking, of the five-day week.

A common feature of most of the measures open to the railroads in dealing with this problem is that they will cost money; an equally common characteristic is that they will be much less costly than the alternatives. For example, the purchase of additional power machines and tools, where they are needed for full mechanization, would be much more economical than hiring men to do work by hand that could be done more efficiently by the machines. The cost of putting additional supervisors or roadmasters on the pay rolls, where a need for them is indicated, would be more than offset by increased output on the part of the existing force, reducing or eliminating the need for hiring more workmen. The carrying charges for expenditures made to get stronger track or a more stable roadbed would be relatively light in comparison with the cost of the labor required to maintain an inadequate structure on a roadbed afflicted with soft spots.

Thus, if railroad managements desire to obtain the most economical solution to the problem of the 40-hr. week, they are going to have to reconcile themselves to the necessity of spending money to get it. Further, if they desire to have the benefits of these cost-saving measures from the date the shorter work week goes into effect, prompt decisions will be necessary. One chief engineer, requesting the authority to adopt a number of measures calculated to reduce costs under the 40-hr. week, implied that his superiors should guard against the "natural tendency" to delay action, waiting to see if the matter would "adjust itself after we go to the five-day week."

This matter unfortunately is *not* going to "adjust itself." The only sound policy in the circumstances is one based on careful advance planning and a willingness to make reasonable expenditures where they are justified in the interest of long-range economy.

Americans won't knowingly bury their "talents" of self-reliance and private initiative in the sterile ground of socialism, but they will be bamboozled into doing so if they fall for the age-old sucker bait of something for nothing!
—*Ernest E. Norris, president, Southern.*

JOHN M. HALL

The retirement of John M. Hall from the Bureau of Locomotive Inspection of the Interstate Commerce Commission takes from active service a man who has earned the respect, confidence and friendship of the railroad industry. Evidence of the esteem in which he is held, if any is needed, was given by more than 500 of his friends who gathered at a testimonial dinner at Baltimore, Md., on June 2 to honor John Hall for the services he has rendered to the railroads as a friend.

Promotion of the safe handling of potentially dangerous existent machines is a legitimate regulatory activity — entirely different from prescriptive powers over the course of potential technological development, which has been the goal of more recent legislative excursions into railroad safety. Mr. Hall has exercised these functions wisely. A railroad man for 50 years, he has been with the Bureau of Locomotive Inspection since 1911, the year the Locomotive Boiler Inspection Act was passed. The achievements of that bureau in promoting the safety of the employees and the public are testimony to the effectiveness of the work of John Hall as a district inspector and later as chief inspector and director of the bureau, and to his associates. Although no records are available for the year prior to the passage of the act, the first annual report in 1912 showed that 91 persons were killed and 1,005 were injured in accidents involving locomotive boilers. Last year the records show that 15 persons were killed and 361 were injured. John Hall believed that "safety and economy are inseparable twins" and that the "interests of the bureau and the railroads are mutual in this respect because the ends sought by each are similar and can be obtained only through exactly the same means—thorough inspections and timely and proper repairs."

The fairness with which Mr. Hall dealt with his judicial duties, his friendliness, and his interest in the railroads and their problems which won for him the confidence and cooperation of railroad men everywhere are an outstanding example of leadership. Railroad men can be sure, however, that John Hall would forego any personal acclaim and feel happier if the railroads would achieve a perfect safety record. That was the goal he was trying to reach.

B. & O. PUTS NEW "COLUMBIAN"

Two eight-car trains, built by Pullman-Standard, bring new luxury to Chicago-Washington overnight coach travel

The Baltimore & Ohio has recently placed in service two new eight-car streamline trains, built by the Pullman-Standard Car Manufacturing Company, as new equipment for the "Columbian," that road's de luxe overnight coach train operating since January, 1942, on a fast schedule between Chicago and Washington, D. C. All seats on the new train are reserved and all extra facilities such as the Strata-Dome, lounge sections, observation room and coffee shop are available to all passengers throughout the trip at no extra cost.

The consist of each eight-car train will normally include one coffee shop-lounge car, two 56-seat coaches, one Strata-Dome car, one 38-seat diner, two more 56-seat coaches and one tavern-observation-lounge car with cocktail bar. Motive power for each train will consist of an Electro-Motive two-unit, 4,000-hp. Diesel-electric locomotive.

The 85-ft. cars embody Pullman-Standard welded girder-type construction with plain flat sides. The car framing of low alloy high-tensile steel conforms to the latest U. S. Railway Post Office specifications and Association of American Railroads recommended practice.

The average car weights and seating capacities are given in an accompanying table. Car weight ranges from 127,900 lb. for one of the coaches to 153,400 lb. for the Strata-Dome car, each of these figures including 39,800 lb. for a pair of trucks. The weight of the eight-car train is 1,066,600 lb. without locomotive and it has a total of 266 revenue seats, 136 non-revenue lounge seats, and crew quarters for 14.

Exterior Color Scheme

All car exteriors are finished in B. & O. standard blue and gray colors with synthetic gold striping and lettering, the trucks being painted aluminum. Vestibules have stainless steel tread plates on the floors and plain unpainted stainless steel walls up to the height of the trap doors when open. Above this point the exterior body blue extends up to the ceiling which is painted exterior body gray.

On the exterior of the coffee-shop-lounge car, at the baggage end, a train name plate is applied bearing the words "The Columbian." The railroad insignia or medallion displaying the capitol dome and letters "B. & O." is also featured on plates of polished brass on a blue background.

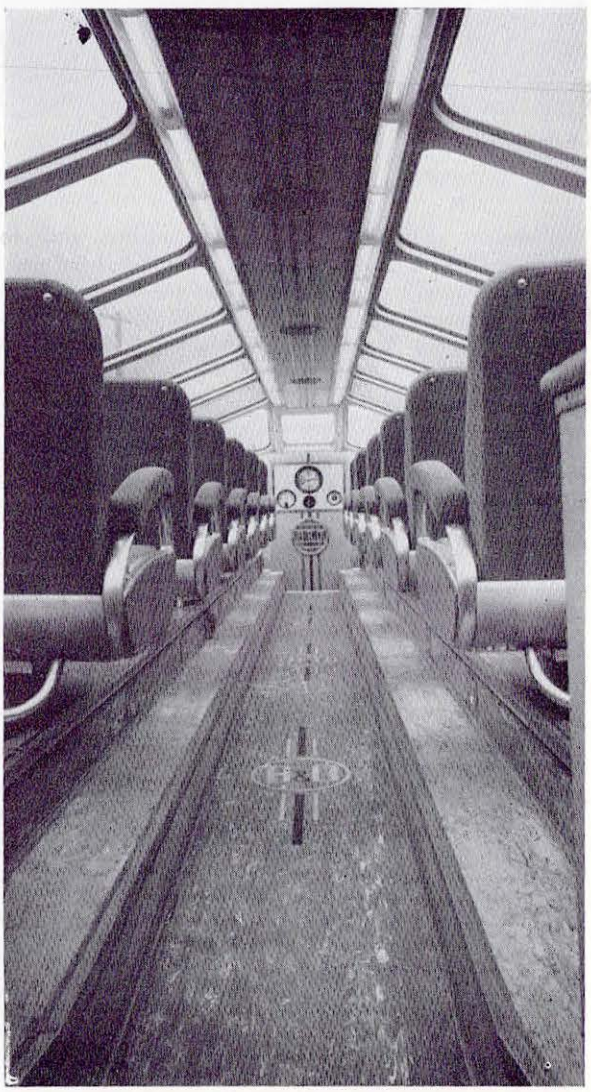
At the rear end of observation-lounge car, an illuminated train sign is applied to the rounded rear-end door exhibiting the train name, "The Columbian," in white lettering on a dark blue background.

Comfort, lighting, color and utility of space character-

Comfort and eye appeal make the 56-seat coaches distinctive (left)

(Below)—Details of the Strata-Dome interior arrangement

IN SERVICE



ize the new "Columbian" Strata-Dome coach, which is the first to be used in regular service on an eastern railroad.

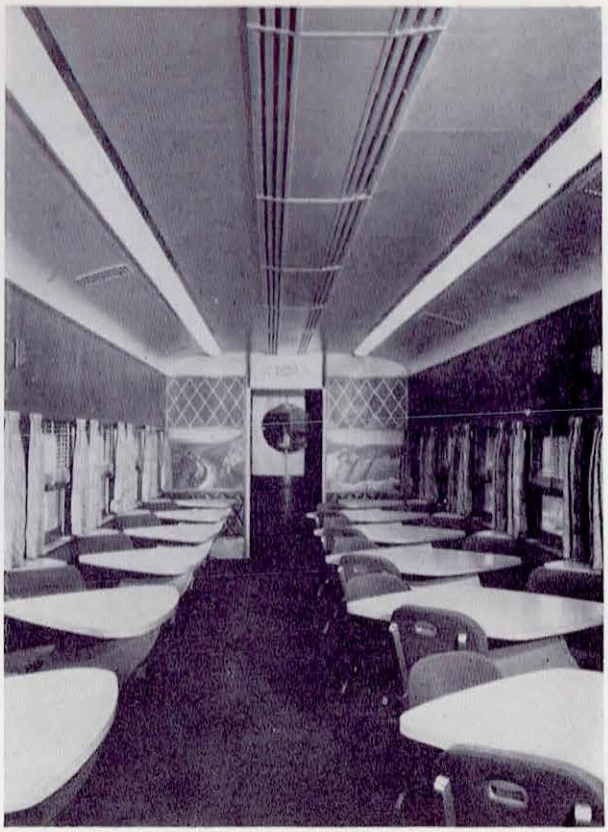
Strata-Dome Coach

At approximately the center of the car a portion of the roof has been raised 1 ft. 9 in. above the normal roof height of 13 ft. 6 in. to provide for the Strata-Dome. This portion of the roof is almost entirely glazed on sides, tops and ends so that a passenger seated in this compartment can view scenery in all directions with no obstruction from other trains. For the length of the Strata-Dome compartment, the car has three floor levels, the upper level being the floor of the Strata-Dome. The lower level is depressed into the underframe to provide sufficient head room for two open lounge compartments. The aisle adjacent to the compartments is at approximately car floor level and the Strata-Dome is reached from this level by a stairway.

In the Strata-Dome, 12 coach seats have been provided on each side of the center aisle. The seats are of a special design, with low backs for better visibility.

The total seating capacity of the Strata-Dome coach is 83. In addition to 24 seats in the Strata-Dome, there are 18 in the forward section; 24 in the rear section; and space for 17 in the depressed lower level beneath the dome. The sunken lower section has two semi-private compartments, one of which seats 11 and the other 6.

The Strata-Dome car has a color combination of blue



and apricot in the lower-level compartments, while in the dome section a cool green treatment has been used to good advantage. Green marbleized rubber flooring is used. The aisle flooring has an inlay of the B. & O. insignia with color accent lines of bright red. The special low seats in the Strata-Dome are upholstered with blue-green fabric.

The dome framework is of high-strength steel, and the Thermopane windows are made of tempered glass and high-strength plastics. In tests, these windows have withstood hurled objects as well as or better than the steel plates of the train roof.

Glare is substantially reduced by the combination of the heat-absorbing plate glass of the Strata-Dome's outboard sheet, which is somewhat darker than regular plate glass, and by the special glare-reducing, extra tough plastic of the laminated safety glass.

Average Car Weight and Seating Capacities

Type of Car	Average weight lb.*	Revenue seats	Non-Revenue seats	Crew quarters
Coffee shop-lounge	131,700	—	16	13
Coaches (four, 56-seat)	127,900	224	—	—
Strata-Dome	153,400	—	—	—
Dome section	—	—	24	—
Front and rear sections	—	42	—	—
Lower level sections	—	—	17	—
Diner	139,500	—	38	—
Tavern-observation-lounge	130,400	—	—	1
Tavern section	—	—	24	—
Observation-lounge	—	—	17	—
Total per train	1,066,600	266	136	14

*Includes truck weight of 39,800 lb. per car set.

The outboard glass contains a special ingredient which absorbs a considerable percentage of the infra-red or heat-carrying rays of the sun, reradiating the heat of the sun outward, thus assisting in maintaining comfortable temperatures within the car.

Diagonal Seating in Diner

One of the most dramatic cars on the new "Columbian" is the diner. The special feature of this car is a postwar dining arrangement developed by Pullman-Standard in which tables and seats are placed diagonally.

Set with one corner facing into wall alcoves, instead of parallel to the wall as in the conventional dining car, the tables are arranged so that each patron is assured one side to himself. In addition, patrons can pursue conversation on a face-to-face basis as they would in their own dining rooms. This arrangement also allows waiters to serve from between tables without reaching in front of one patron to serve another.

The dining car has a capacity to seat 38 persons, 20 at four-seat tables and 18 at two-seat tables. Attached to the walls of the car instead of the floor, all tables in the dining car are vibrationless and allow for maximum foot space.

Both the wall seats and the pull-up chairs in the diner are upholstered with blue super needle-point fabric. The chairs are of aluminum construction with copper-bronze finish. This same finish has been applied to all metal moldings, metal furniture bases, entrance door casings and headers. A modern ornamental de-

Facing page, left—Stairway leading to the Strata-Dome from lower level

Facing page, right—Diagonal seating and decorative treatment in the diner

Right—Looking past the bar to the observation-lounge

PARTIAL LIST OF MATERIALS AND EQUIPMENT ON THE NEW B. & O. "COLUMBIAN" TRAINS

Trucks	General Steel Castings Corp., Granite City, Ill.
Center-plate, equalizer coil-spring, side-bearing and journal-box pads	Fabreeka Products Co., Boston, Mass.
Roller bearings	Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.
Side bearings; truck clasp brakes	American Steel Foundries, Chicago
Shock absorbers	Monroe Auto Equipment Co., Monroe, Mich.
Air brakes; electric brake equipment	Westinghouse Air Brake Company, Wilmerding, Pa.
Draft gear	Waugh Equipment Co., New York
Center-plate locking pins	W. H. Miner, Inc., Chicago
Brake shoes	American Brake Shoe Co., New York
Hand brakes	National Brake Co., New York
Insulation, body and pipe	Gustin-Bacon Manufacturing Co., Kansas City, Mo.
Window sash	Adams & Westlake Co., Elkhart, Ind.
Glass	Libbey-Owens-Ford Glass Co., Toledo, Ohio Pittsburgh Plate Glass Co., Pittsburgh, Pa.
Thermopane windows in dome	Libbey-Owens-Ford Glass Co., Toledo, Ohio
Windshield wiper, observation end door	Trico Products Corp., Buffalo, N. Y.
Window capping and table tops	Formica Insulation Co., Cincinnati, Ohio
Air-conditioning system	Frigidaire Division, General Motors Corp., Dayton, Ohio
Air filters	American Air Filter Co., Louisville, Ky. Farr Company, Los Angeles, Calif.
Air filters, odor absorbing	W. B. Connor Engineering Corp., New York
Heating system; steam end valves and couplers; water heating jackets	Vapor Heating Corp., Chicago
Water raising equipment	Westinghouse Air Brake Co., Wilmerding, Pa.
Generators	General Electric Co., Schenectady, N. Y.
Batteries	Electric Storage Battery Co., Philadelphia, Pa. Gould Storage Battery Corp., Trenton, N. J. K. W. Battery Co., Chicago Philco Corp., Philadelphia, Pa.
Charging receptacles; train-line connectors	Pyle-National Co., Chicago
Electric meters	Weston Electrical Instrument Corp., Newark, N. J.
Electric fans:	
Exhaust	Safety Car Heating & Lighting Co., New York
Intake blower	Westinghouse Electric Corp., Sturtevant Division, Hyde Park, Boston, Mass.
Lighting fixtures	Luminator, Inc., Chicago Safety Car Heating & Lighting Co., New York
Hand railings	Adams & Westlake Co., Elkhart, Ind. A.B.S. Manufacturing Co., New York
Seats	General Fireproofing Co., Youngstown, Ohio
Seats:	
Coach	Heywood-Wakefield Co., Gardner, Mass.
Dome section Strata-Dome car	Coach & Car Equipment Corp., Chicago
Seat covering	Collins & Aikman Corp., New York Goodall Fabrics, Inc., New York
Writing desks	S. Karpen & Bros., Chicago
Carpet	A. Holmes & Son, Philadelphia, Pa. Beck & Blatchford, Chicago
Metal covered plywood	Haskelite Manufacturing Corp., Grand Rapids, Mich. Met-L-Wood Corp., Chicago
Wood veneer	United States Plywood Corp., New York
Leather wall covering	Cleveland Tanning Co., Cleveland, Ohio
Paint	E. I. du Pont de Nemours & Co., Wilmington, Del. Sherwin-Williams Co., Cleveland, Ohio
Murals	Kaufman & Fabry Co., Chicago
Venetian blinds	Ajax Consolidated Co., Chicago
Window curtains:	
Fabric	Goodall Fabrics, Inc., New York
Backing	Pantasote Co., New York
Draperies:	
Facing	Goodall Fabrics, Inc., New York Orinoko Mills, New York
Backing	Lussky, White & Coolidge, Inc., Chicago
Rubber tiling	Goodyear Rubber Co., Dayton, Ohio
Tile floor in toilet rooms	Sparta Ceramic Co., East Sparta, Ohio
Interior locks	P. & F. Corbin Division of the American Hardware Co., New Britain, Conn.
Door checks	Yale & Towne Manufacturing Co., Stamford, Conn.
End door locks	Dayton Manufacturing Co., Dayton, Ohio
End door engines	National Pneumatic Co., Rahway, N. J.
Kitchen range, steamtable and coffee urn	Stearnes Co., Chicago
Garbage disposal unit	General Electric Co., Schenectady, N. Y.
Mechanical refrigeration	Frigidaire Division, General Motors Corp., Dayton, Ohio
Bars	Mandel Bros., Chicago
Water coolers	Cordley & Hayes, New York
Drinking-cup dispensers	Dixie Cup Co., Easton, Pa.
Smoking stands	Precision Metal Workers, Chicago
Ash receptacles	Adams & Westlake Co., Elkhart, Ind.
Radio and public address system	Capehart-Farnsworth Corp., Fort Wayne, Ind.
Telephone	Automatic Electric Co., Chicago
Annunciators	Graybar Electric Co., New York
Instrument panel in dome of Strata-Dome cars:	
Clock	Seth Thomas Clocks Division of General Time Instrument Corp., Thomaston, Conn.
Barometer	Taylor Instrument Companies, Rochester, N. Y.
Altimeter	Kollsman Instrument Division of Square D Co., Elmhurst, N. Y.
Speedometer	Electric Tachometer Corp., Philadelphia, Pa.
Hoppers	Crane Co., Chicago Duner Co., Chicago
Toilet room dispensers	Griffith-Hope Co., West Allis, Wis. Scott Paper Co., Chester, Pa. West Disinfecting Co., Long Island City, N. Y.
Fire extinguishers	Pyrene Manufacturing Co., Newark, N. J.

The space under the Strata-Dome is taken up by two compartments

Interior of the baggage section

sign has been applied to the header over the entrance door.

To link the dining car with the territory served, color and design experts have selected four full-colored murals for the bulkheads depicting scenic points of interest along the railroad right-of-way. At one end of the diner are murals of the Lincoln Memorial and reflecting basin and the Chicago skyline. At the opposite end are murals of the Cumberland Narrows and Harpers Ferry.

The frieze panel above the windows and above the murals is covered with brown leather having diagonal diamond patterns in gold-tooled lines. The floor of the main compartment of the diner is carpeted in the same brown color theme.

Reclining-Seat Coaches

Each of the reclining-seat coaches has 56 easily adjusted seats where passengers may rest or sleep comfortably, by day or night. These Heywood-Wakefield Sleepy Hollow seats are scientifically designed for full body comfort, spaced to give ample leg room, and have a wide range of adjustment for back and footrest positions. A button adjusts the back of the seat to nine different positions and the footrest is adjustable to four positions.

Large and attractive lounges are an outstanding feature of the coaches. A spacious women's lounge is located at one end of each car, and an equally large men's room at the other. There is an enclosed compartment for heavy luggage in one end of each coach and wide overhead racks afford ample and convenient storage space for small bags and wearing apparel.

Extra large windows give every passenger a full outside view, and as all cars are air-conditioned complete comfort is assured in any season. Lighting is adjustable for individual desires, with fixtures conveniently and scientifically placed in the overhead luggage racks. The coaches, like all cars on the train, have electropneumatic operated end doors, which open at a touch of the hand.

Interior color schemes in the coaches are apricot and blue, alternated in the train consist. Radio reception is provided in each of the cars, with six speakers recessed in the ceiling. Radio speakers also are located in the lounges.

Observation-Lounge Car

The observation-lounge car, decorated in red, blue and gold color combinations, has a tavern section seating 24 passengers on sofas and lounge chairs. In the center of this section is a decorated semi-circular bar with a quilted leather front. The gold color scheme of the tavern is further emphasized by an appropriate gold monotone mural on the forward bulkhead, and gold mirrors with etched design of wheat at the back of the bar.

In the observation-lounge section, which seats 17 passengers and has it own writing desk, sofas and lounge chairs are red and blue with blue carpet balanced effectively by gold draperies. Gum flexwood of natural color, with a highly figured wood grain, is applied on the entire frieze panel. Wainscoting is in red leather.

At the forward end of the observation car a completely-equipped room is provided for the stewardess.

Each car in the new "Columbian" is equipped for radio reception. Conveniently and scientifically placed speakers bring entertainment to passengers without blare or distortion. Sixteen channel radio tuners are located in the coffee shop-lounge car, the observation lounge, and the Strata-Dome car, offering a wide selection of programs over the route of the trains.

Radio Facilities

To facilitate train announcements, the radio system is linked with a public address hook-up which may be controlled from the conductor's desk in the coffee shop-lounge car, the steward's desk in the dining car, or from the stewardess' room in the observation-lounge section.

Each coach carries six speakers in the ceiling with additional ones in the men's and women's lounges. Four speakers are placed in the tavern-lounge section, three in the observation lounge, and one in the stewardess' room. The Strata-Dome car has two speakers in the forward coach section and three in the rear compartment section, one in the lower level section, and one in the Strata-Dome proper. Five speakers are located in the dining car, and a wire recorder is available for the playing of uninterrupted dinner music.

Inter-car communication also is provided by a dial telephone system, with stations in the locomotive cab, baggage room, conductor's desk and storage locker in the observation car. Local phone calls may be made from a telephone in the observation car when the train is at a terminal.

Strata-Dome Instrument Panel

The Strata-Dome is equipped with an instrument panel at the forward end designed to interest the most gadget-minded passenger. Not only is there a clock, but passengers may take the speed of the train from a speedometer, the altitude at which the train is traveling from an altimeter, and may forecast the weather from a barometer.

Although clocks and speedometers have made their appearance on other de luxe trains in the past, it is believed this is the first time an altimeter and barometer have been included in an instrument panel for the information of the public.

Air-Conditioning, Heating

Air conditioning equipment on the train is of the latest Frigidaire electro-mechanical type with thermostatic control. The air-cooled condenser and compressor utilize an auxiliary water-spray for operation under high head-pressure conditions. The evaporator is floor mounted, sectionalized horizontally, and located in a locker at the end of the car. The electric control panels are in a separate locker.

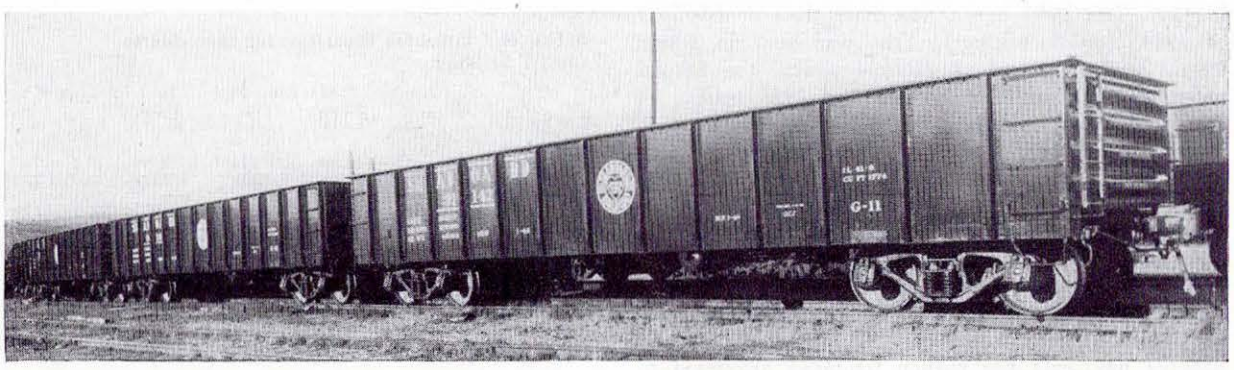
The cooling capacity of the equipment is eight tons on each car except the Strata-Dome, which has a 10-ton unit using one compressor and two condensers in series. Six tons of this capacity is required in the lower part of the Strata-Dome car and four tons in the dome section.

Vapor steam heating equipment in each car includes modern fin-type radiation units for floor heat with zone control, themostatically governed. Overhead heating is also supplied to operate in conjunction with the air-conditioning system.

Trucks, Air Brakes

The trucks are of General Castings four-wheel, all coil-spring type, with single equalizer bars and 13⅜-in. pedestal openings to accommodate Hyatt roller bearing journal boxes. The truck frames, bolsters and spring planks are made of alloy steel. Simplex unit-cylinder clasp brakes are installed, also Monroe vertical hydraulic shock absorbers and Drews evertight side bearings.

Air brake equipment is of the Westinghouse H.S.C. full electric type with speed governor control to give a graduated percentage of braking effort for a maximum of 250 per cent (with 100 lb. cylinder pressure) down to a smooth stop. Four decelostats on each car automatically release the brakes momentarily on any wheels which might have a tendency to slide and set the brakes again to the proper ratio with other brakes when the wheels begin to roll properly.



The Seaboard Air Line recently received the first part of a shipment of 400 high-side gondolas being built at the Berwick, Pa., plant of American Car & Foundry Co.

First-Quarter Capital Outlays Totaled $342.6 Million

Were 26.5 per cent above those of same 1948 period, I.C.C. bureau reports; estimates indicate that expenditures during first nine months will be up 18.5 per cent

Gross capital expenditures made by the 132 Class I line-haul railroads during this year's first quarter totaled 342.6 million, an increase of $71.8 million or 26.5 per cent above the $270.8 million spent during last year's first three months, according to figures presented by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission in the latest issue of its "Monthly Comment." The data included estimates of second and third quarter expenditures submitted by 128 of the 132 roads, and these estimates indicated that expenditures during this year's first nine months will total $1,033.9 million, an increase of 18.5 per cent above actual expenditures during the same 1948 period.

The four roads which failed to submit estimates for this year's second and third quarters made expenditures totaling $10.3 million during the first quarter. Of the first-quarter total ($342.6 million), $271.7 million, or 79.3 per cent, was spent for equipment, while $70.9 million, or 20.7 per cent was spent for road. The first-quarter expenditures of 1948 were divided 76.3 per cent for equipment and 23.7 per cent for road. Other comparisons are set out in the accompanying table.

Loss and Damage Payments

Another article in the "Comment" presented and discussed data on payments for "loss and damage" to freight, thus emphasizing how such payments have increased both absolutely and relatively since 1939. The charge to operating expenses for loss and damage payments in 1948 was $129.5 million, a new high which exceeded by $7.9 million the previous peak reached in 1947. The 1948 figure was more than double that of 1944 ($63.8 million), "the war year in which freight traffic reached an all-time peak," the bureau noted. It went on to point out that 1948 traffic, as measured by ton-miles, was 13.4 per cent below that of 1944. Moreover, the 6.5 per cent increase in loss and damage payments in 1948 as compared with 1947 came despite a drop of 2.5 per cent in freight traffic.

In 1939, the loss and damage payments totaled $20.6 million, and they increased sharply each year after 1941 until they reached the 1948 peak, which was 526 per cent above the 1939 figure, ton-miles having increased, meanwhile, only 91 per cent. Loss and damage payments per million ton-miles amounted to $203 in 1948—227 per cent above 1939's $62.

In what it called an undertaking "roughly to adjust" the loss and damage figures for increases in material and labor costs, the bureau "deflated" the 1944, 1947, and 1948 charges to a 1939 base by use of the wholesale price index of the Bureau of Labor Statistics. "Even on this basis, however," it noted, "the deflated amount of loss and damage in 1948 was 193 per cent above that of 1939 or more than twice the increase of 91 per cent in ton-miles. Per million ton-miles, the freight loss and damage on the basis of 1939 prices increased from $62 in 1939 to $95 in 1948 or 53 per cent."

Motive Power Shifts

The shift in railway motive power was discussed in another article which set up tabulations based on the March reports (Form OS-F) of the 1944-49 period, made by Class I roads, including switching and terminal companies. The tabulations pointed up the decline in the number of steam locomotives in service and the rise in the number of Diesel-electrics. At the end of last March, there were in service 31,939 steam locomotives, a drop of 7,963 or 20 per cent below the March 31, 1944 total of 39,902. Meanwhile, the number of Diesel-electrics in service increased by 4,444 or 207 per cent—from 2,150 to 6,594. The total number of all locomotives in service decreased by 3,591 or 8.4 per cent. In March of this year, Diesel-electrics represented 16.8 per cent of the total locomotives in service, as compared with 5 per cent in March, 1944.

Actual and Estimated Gross Capital Expenditures Class I Railways

Period	Number of roads	Road Thousands	Equipment Thousands	Total Thousands	Per cent of total Road	Per cent of total Equipment
Actual 1948:						
1st quarter	132	$64,260	$206,539	$270,799	23.7	76.3
1st nine months....	131	240,870	631,309	872,179	27.6	72.4
Actual 1949:						
1st quarter	132	70,875	271,686	342,561	20.7	79.3
Estimated 1949:						
2nd quarter	*128	81,978	299,896	381,874	21.5	78.5
3rd quarter	*128	89,208	220,227	309,435	28.8	71.2
Total:						
1st nine months 1949, actual and estimated	—	242,061	791,809	1,033,870	23.4	76.6
Per cent increase:						
1st quarter 1949 over 1948	—	10.3	31.5	26.5	—	—
1st nine months 1949 over 1948 ..	—	0.5	25.4	18.5	—	—

*Estimate not furnished by four roads.

A breakdown by classes of service showed that the number of steam locomotives in each class declined steadily since 1944, except for a slight increase in passenger service in March, 1946, while the number of Diesel-electrics rose sharply from year to year. In March of this year, Diesel-electrics represented 30 per cent of the total number of locomotives in yard service as compared with 12.9 per cent in March, 1944. The corresponding figures for road freight service were 8.8 per cent and 0.9 per cent, and for road passenger service, 14.8 per cent and 2.6 per cent. Most of the Diesel-electrics in service in March, 1944 (82.8 per cent) were in yard service, but this year's March reports showed this distribution: Yard, 59.8 per cent; road freight service, 27.4 per cent; road passenger service, 12.8 per cent.

Four Months Traffic and Earnings

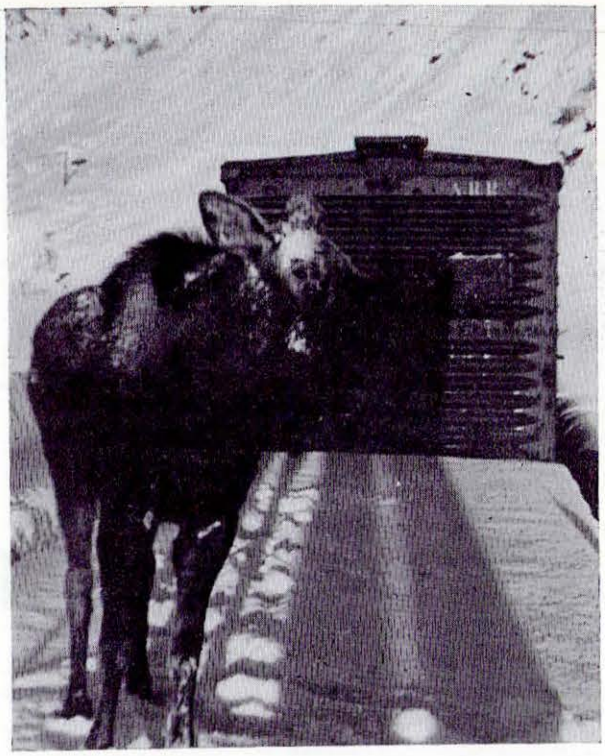
Comparing traffic and earnings of this year's first four months with those of the same 1948 period, the bureau calculated that the 1949 period's combined volume of freight and passenger business, as measured in "traffic units" (revenue ton-miles plus twice revenue passenger-miles) was 9.6 below that of 1948's first four months. It was pointed out that in both periods the traffic was adversely affected by severe weather conditions and "stoppages" of mining in the coal fields.

Operating revenues for this year's first four months were only 2.7 per cent below those of the same 1948 period. The fact that this decline was substantially less than the drop in traffic was "largely due" to the higher rates in effect this year, the bureau said. Meanwhile, operating expenses were down 1.7 per cent, so the net railway operating income of the 1949 period ($193.2 million) was, as the bureau put it, "only 1.3 per cent below that of 1948." For this year's first two months, the net railway operating income was off 23.1 per cent, but the March and April figures were 7.7 per cent and 22 per cent, respectively, bigger than those of the same 1948 months.

Other articles in the "Comment" reported on the financial results of Railway Express Agency operations in this year's first quarter, and on the 1948 earnings of the large freight forwarders and the Class I intercity motor truck operators. "Charges for transportation" made by R. E. A. during this year's first quarter amounted to $82.3 million as compared with $111.2 million in the same period in 1948, or a decrease of 26 per cent, "despite substantial percentage increases in express rates authorized by this commission which were in effect in the 1949 period," the bureau said. After paying its operating expenses and taxes, R. E. A. turned over to the railroads and other carriers "express privilege" payments totaling $18 million in this year's first quarter. That was a drop of 46.5 per cent below the $33.6 million turned over in 1948's first quarter.

Forwarders and Truckers in 1948

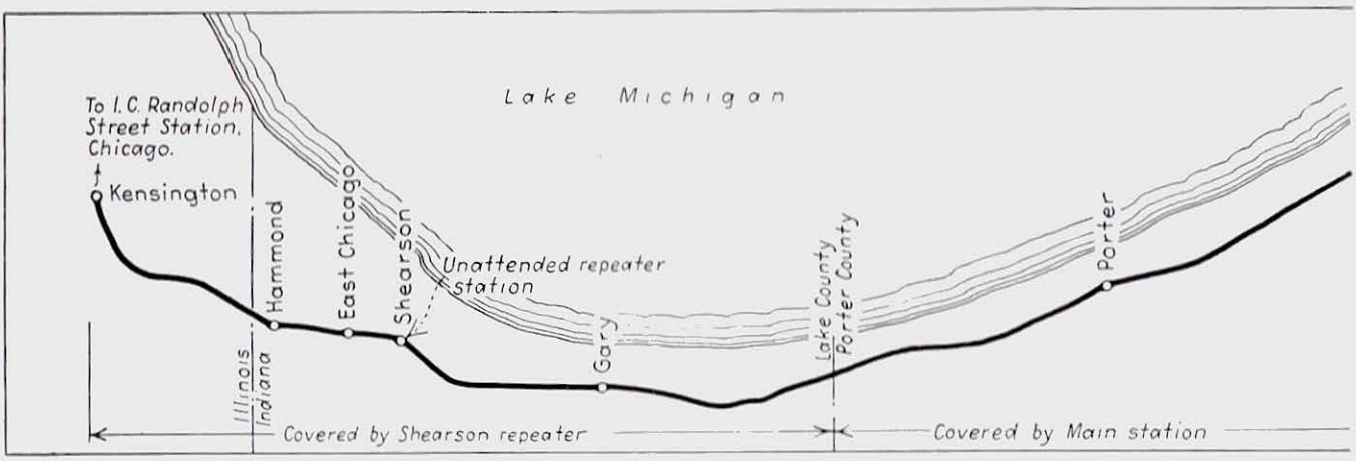
The reports on 1948 earnings of the forwarders and the intercity truckers were based on summaries of quarterly returns made by those carriers. As to the forwarders, they showed that the 56 large companies



DEADHEAD LIVESTOCK—This moose boarded an Alaska Railroad flat car when it was snowed in on a siding. After a rotary plow had cleared the siding and a switch engine moved the cars, the moose remained aboard—without billing

(those reporting revenues of $100,000 or more per year) had a composite 1948 net income of $4.3 million, a decrease of 9.7 per cent below the $4.7 million reported for 1947. The forwarders' gross was up 10.5 per cent, from $238.9 million to $264.1 million, but the amounts they paid to carriers transporting their traffic was up nearly as much, i. e., 10.2 per cent. These increases, the bureau pointed out, "largely reflected the increases in freight rates and charges authorized by this commission." The forwarders handled 4.1 million tons of freight in 1948, a drop of 9.7 per cent below the 4.5 million tons handled in 1947. Their 1948 payments for transportation purchased totaled $202.2 million, of which the railroads received $146 million.

The summarized quarterly returns from Class I intercity motor carriers covered the operations of 1,605 truckers. Their 1948 gross totaled $1.6 billion, an increase of 29.1 per cent above 1947's $1.2 billion. Their net income was $73.5 million, an increase of 81.1 per cent above the $40.6 million reported for 1947. They carried last year 156.5 million tons of freight, an increase of 14.6 per cent above 1947's volume of 136.5 million tons. This traffic increase "may be compared with a decrease of 1.3 per cent in the number of tons of revenue freight carried by Class I steam railways between the same periods," the bureau suggested. It added that the 1948 tonnage handled by the truckers was 5.5 per cent of that reported by Class I roads, as compared with 4.7 per cent in 1947.



Radio Freed from Wire-Line Linkage

Installation on 77 mi. of the electrified South Shore Line is the first of its type to be authorized by the Federal Communications Commission

By P. J. CORPORON
Assistant Superintendent Way and Structures
Chicago South Shore & South Bend
Michigan City, Ind.

To secure two-way communication between its dispatcher and freight and passenger trains, maintenance trucks and supervisors' automobiles, the Chicago South Shore & South Bend, an electrified railroad operating between Chicago and South Bend, Ind., 90 mi., has adopted a new space radio relay system on 77 mi. of road. The installation is the first of its type to be authorized by the Federal Communications Commission, the important feature being that remote radio repeater or relay stations, required to communicate with trains or vehicles beyond the horizon from the dispatcher's office, are controlled entirely by radio and independent of land wire lines usually employed for such operation.

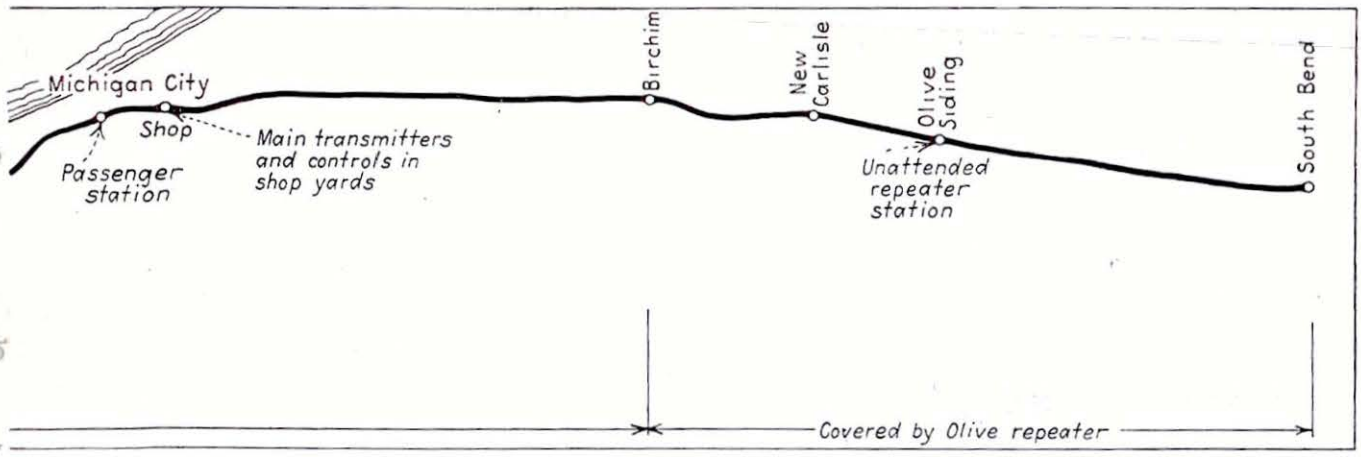
From Randolph Street station, in Chicago, to Kensington, Ill., the South Shore operates over the Illinois Central. From Kensington to South Bend it has its own tracks. The rail distance between South Bend and Kensington is 77 mi. This is a very busy stretch, with 68 passenger trains daily between Chicago and Gary, and 39 between Chicago and South Bend. In addition, a large number of freight trains are operated daily, these trains being hauled by electric locomotives.

Covers Entire Railroad

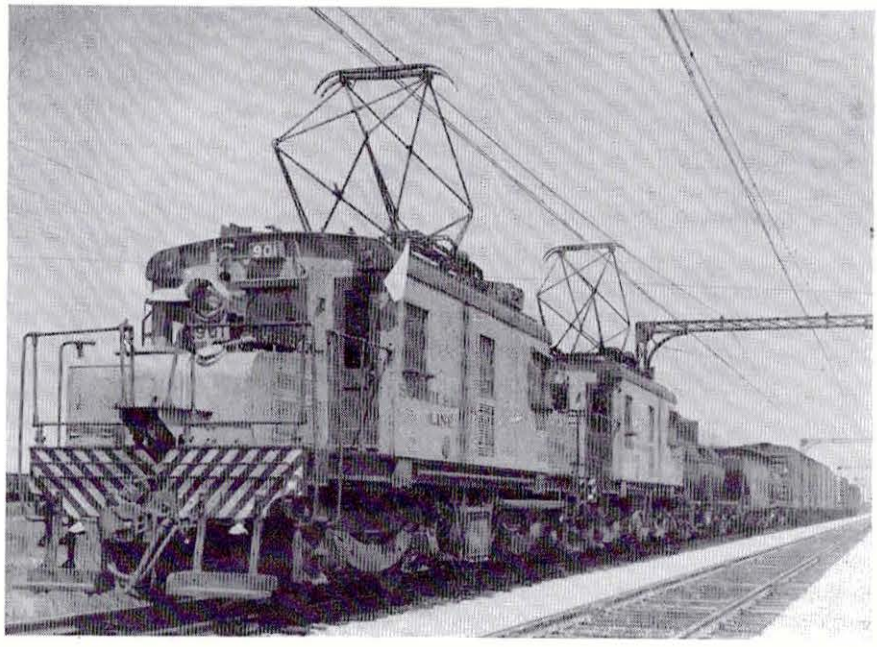
Our line car, several motor vehicles, two passenger trains and two freight locomotives have been equipped with radio, and it is expected that the remainder of our freight locomotives will soon be equipped, and that the system will be expanded to cover all of our through passenger trains. The dispatcher at Michigan City, Ind., approximately halfway between Kensington and South Bend, may now communicate directly or via two radio repeater stations with any mobile units on trains or motor vehicles anywhere between Kensington and South Bend. Communication can be maintained with trains as far as the 53rd Street station on the Illinois Central, although it is not needed beyond the junction where our trains enter Illinois Central tracks.

In addition, crews of any of our mobile units can communicate with the crews of any other mobile unit when both are within the service range of either of the two repeater stations. When mobile units are close to Michigan City and out of the operating range of either of the two repeater stations, or if one mobile unit is in the service area of one repeater station and another is in the service area of the other repeater station, communication between these two mobile units may be manually relayed by the dispatcher at Michigan City.

Since our space radio communication system has been in operation, we have found that, for all practical purposes, we have 100-per cent coverage of our railroad. In many instances already radio communication has proved invaluable. In case of trouble we have been able to reach the crew of our line car while it is en route, to send it directly to a trouble spot; this eliminates even a moment's delay, and we are often able to catch up with trouble before it happens. Our supervisors, traveling in automobiles, and our maintenance crews traveling in trucks, can be reached



Simplified map of the South Shore Line between Kensington, Ill., and South Bend, Ind., showing locations of main and repeater radio stations and territories served thereby



Radio-equipped locomotive at the head of a westbound freight train at Wagner, Ind. Radio antenna is above the headlight and transmitter-receiver is to the right of it

Signal maintenance truck, with 30-watt radio at East Chicago, Ind. The author of this article—F. J. Corporon, assistant superintendent way and structures—is shown using equipment

Chief Dispatcher A. H. Kambs at Michigan City, Ind., using handset controlling one of the land stations

by the dispatcher along any part of our railroad. This added system flexibility gives us a new dimension of operating efficiency.

Planning Started in 1946

Our planning for radio dates back to 1946, when C. H. Jones, vice-president and general manager, saw the possible advantages of two-way radio communication in train operation and emergency maintenance. Our first investigation of the practicability of two-way train radio was discouraging, as we encountered many limitations which seemed to preclude a flexible system that would serve our purposes. The most feasible plan in our investigation was arrived at in collaboration with the Bendix Radio Division of the Bendix Aviation Corporation. More than a year elapsed before our radio communication system emerged from the preliminary planning to actual experimentation. Now our system is a reality and is saving time and money, with new ways being found every day to improve service to passengers and shippers.

Direct communication from the dispatcher's office at Michigan City with trains and maintenance vehicles requires coverage beyond limits of the horizon. In order to cover the entire railroad, it was necessary to use at least three land stations employing radio frequencies in the 152- to 162-megacycle band. The usual method of operation in such a case would be to tie in these three land stations by means of wayside telephone wires which, in itself, would have been a weakness of a space radio system. Also, we needed to be able to control the equipment from any desired point along this land line. This dependence on land lines for the control of these radio stations would subject the radio communication system to the same hazards in winter as existing telephone communication. Radio would be most useful at times when the overhead catenaries were disabled, and at such times the telephone lines too are usually out of commission.

Our engineers, working with the manufacturer, devised a radio relay system to provide the desired communication range without depending upon land telephone wires for the control of our radio stations. We envisioned a true space radio communication system to reach trains anywhere on our lines, with none of the faults of previous systems; we could cover our whole railroad with dependable static-free radio communication. Our answer was to install two automatic radio repeater stations, one to the east of Michigan City and one to the west. Radio communication from the central land station at Michigan City to trains within a 15- to 20-mi. radius of this point would be handled direct without the use of the repeater stations. Communication to mobile units beyond this distance would be through simultaneous retransmission over the two automatic repeater stations. In a like manner, signals from the mobile units to Michigan City would be relayed through the nearest repeater station, if originating more than 15 to 20 mi. from Michigan City.

Communication Equipment

At Michigan City two sets of land-station equipment are employed, one for direct contact with mobile units within the direct range of Michigan City, and the other for activating the two automatic repeater stations. Control facilities for both sets of land-station equipment are located in the dispatcher's office. One of the refinements of our new system is that only two radio channels in the 152- to 162-megacycle band are required—158.43 megacycles and 161.37 megacycles. The westward automatic repeater station is located at Shearson, Ind., just east of East Chicago, Ind., and the eastward automatic repeater station at Olive Siding, a few miles east of New Carlisle, Ind. The Shearson repeater station is approximately 30 mi. west of Michigan City and the Olive repeater station approximately 22 mi. east. Both are beyond line-of-sight distance from Michigan City.

Bendix communication units are used on trains and at both repeater stations, as well as in the main land station at Michigan City. These communication units consist of a frequency-modulated (FM) transmitter and receiver. The power output of these transmitters when used at our land stations and on our passenger trains is 50 to 60 watts, but on freight trains, using a different type of power supply, about 25 to 30 watts of power is radiated. Supervisory automobiles and some maintenance trucks are equipped with 30-watt Motorola mobile units.

Under one of the two antennas at each repeater station a Bendix communication unit is used as a receiver. At the other antenna site a similar unit is used as a transmitter. The units are identical and may be interchanged. The repeater stations receive signals from mobile units or the Michigan City land station on 158.43 megacycles and retransmit the receiver intelligence on 161.37 megacycles; thus the mobile units receive on the latter frequency.

In charge of our system planning is W. J. Mallon, superintendent of way and structures, assisted by the writer and R. B. Hendrickson, assistant engineer way and structures. The system was installed and is being maintained by F. A. Zerber, contract radio communication engineer, the major items of radio equipment having been furnished by the Bendix Radio Division of the Bendix Aviation Corporation.

New Objectives for Agricultural Agents

By EDWARD J. LEENHOUTS
Manager, Stock Yards and Agricultural Development, New York Central

The primary reasons why a railroad maintains an agricultural department are:

1. To create new agricultural tonnage for the railroad to haul;
2. To increase the prosperity of rural communities which, in turn, is reflected in greater passenger business and more inbound freight tonnage;
3. To build up good will toward the railroad in rural communities, and
4. To develop avenues through which railroad information can be passed to rural people.

Rural Good Will Essential

The advent of the trucks has taken the driving motive out of the old-time objective, and the excellent work of the extension service has removed most of the need. But there has arisen a much more important objective than that of building up a few thousand tons of new freight; namely, that of saving the very life of our corporation.

The railroads *must* have the good will of rural people or they will cease to be. No one is in better position to build up this good will than the agricultural representative of the railroad. The best way to do this is to work with the established agencies in any and all programs which are recognized as tending to be of benefit to the rural people. Helping them solve their problems gives us an entree that cannot be matched. If it creates new tonnage, well and good. Let's try and get some of it! If it brings greater prosperity to the rural people, we are bound to get a small share of it. If it does not make these people more kindly disposed to our railroad, and more ready to help it with its problems, there is something wrong with our program. The big objective is good will—with it will come such traffic as can, within reason, be given to us, but with it we can build up that change in public policy which we must have if we are to survive.

The life of our industry is in the hands of the public. With rates and wages set by public bodies, most of our income and most of our outgo is determined by public policy. Schedules, services, investments — these are largely subject to the will of commissions subject to public control. Public policy, not railroad management, is the determining factor in whether our industry will prosper or go broke. Hence, the good will of the public becomes of paramount concern and railroad agricultural men have a wonderful opportunity to serve the industry most effectively in the rural field.

If we are to get a change in public policy which will permit the railroads to have adequate earnings, and to compete with other forms of transportation on an equitable basis, it will be brought about by rural legislators who are, fundamentally, opposed to government ownership and inclined to look upon questions from a national welfare point of view. Their general philosophy is in line with ours, and they will be found in our corner if they can be made to understand our problems. The railroad man who brings about this understanding among the rural people is doing more for his railroad than if he gets a few extra thousand cars of business.

This I say categorically—*unless we get a change in public policy, very few of our railroad corporations will escape bankruptcy and government ownership.* Certainly no program of agricultural development, no matter how productive it might be from a potential traffic viewpoint, could have much of a bearing on the ultimate result unless it influenced public opinion favorably.

Playing for Big Stakes

With all this as a background, the New York Central's agricultural department is constantly on the lookout for opportunities to work with agricultural leaders and people in our territory on projects which are beneficial to them, because (1), generally, we will derive direct or indirect benefit, and (2) by helping them we establish the good will which we need for a fair consideration of our problems. In most cases, immediate and direct revenue is not involved, although we would welcome such projects if they were available. . . . We do keep ourselves identified with the "4-H Club" and "Future Farmer" programs in all our states with distinct N.Y.C. projects. . . . We work with leaders of farm organizations at every opportunity. . . . We are completely convinced that the small amount of money which our railroad spends on "agricultural development" is returning large dividends in the form of direct revenue. There have been years when the revenue from tours for 4-H Clubs and farmer groups, sponsored for their good will feature, was greater than the entire expense of that phase of our department. But our emphasis is on building up good will, and I believe the railroad gets more for each dollar invested in our program than any invested in its general public relations and advertising program.

If we fail to stem the tide running against the American railroads and against private enterprise in general, our railroads will go into bankruptcy and our nation into a sad form of socialism. Railroad agricultural development men are playing for big stakes—not for ourselves, but for the next generation.

From a paper delivered at the 40th annual meeting of the American Railway Development Association, Old Point Comfort, Va

only 10 min., and the actual raising or lowering of the bridge 45 sec.

Safety switches prevent lifting the bridge until the chain is disconnected, and the track switch leading into the freight station is protected by an additional lock, the key to which is kept in a box at the bridge and is obtainable only when the bridge is raised, since the box is covered by the bridge when it is down.

The moderate rate of speed at which the conveyor chain travels makes it possible for employees to engage trailers to it, or disengage them from it, with safety and ease. Freight loaded on the trailers is marked with the spot number and stevedores disengage the trailers at the proper place, pulling them into the cars where the load is removed and stowed. The empty trailers are reattached to the conveyor chain for return to points where they will be reloaded. Trailers are disengaged from the conveyor chain manually, by lightly striking a lever on the mast, which opens the claws. With this method of attaching the telescopic masts to the conveyor belt it is not necessary to take slack to disengage the trailers from the chain, thus making it a one-man operation.

The overhead conveyor system keeps freight moving continuously, whereas, under the old system, it was loaded on trailers and would remain on the platform as long as 30 to 40 min. before tractors could get back to pick it up. The result was overcrowding of the platform with a consequent slowing down of operation. Freight towed by the conveyor moves currently and platforms are kept clear for the handling of freight as fast as it arrives on street trucks.

The conveyor enables the station forces to load all of the freight out every day, whereas—before the installation was made—it frequently happened that congestion late in the day necessitated the holdover of some merchandise which could not be handled to and loaded into cars in time for their scheduled pull-out.

Damage to freight has been noticeably reduced. Trailers are not loaded as high as was the former practice, and they are towed at a slower, uniform rate of speed, lessening the likelihood of damage by collision or upset in transfer.

The cost of handling freight through the station is reported to be substantially reduced as a result of the new system of operation.

MAIL RATES—A SUBSIDY IN REVERSE

By David Lawrence

There are plenty of instances of subsidy furnished by the government to private business but there apparently is only one conspicuous case in which a private business actually subsidizes the government.

This is what the railroads are doing in carrying the mails. So they are asking the Interstate Commerce Commission for an increase in mail pay. This has led to over-all study of the whole question of transportation policy with respect to the mails.

Now the Senate has just adopted a resolution authorizing an inquiry designed to find out how an equitable solution of the problem can be found, with particular reference to the fact that there are three different rates paid by the government for carrying mail.

For the government subsidizes the airlines and pays out more than 80 per cent of the revenue from airmail stamps to pay the airline companies. The Post Office Department, however, collects $668,000,000 a year from the public for first-class stamps and pays the railroads about $26,000,000. So that a very small fraction of the three-cent stamp goes to the railroads—that is, only 4 per cent of three cents—while the airlines get nearly all of the present six-cent airmail stamp revenue.

Not since the 1920's has there been a real study made of the problem. Meanwhile, operating expenses have gone up so that it costs the railroads, for instance, twice as much as it did then to carry mail. But they have not been able to get from the government a proper charge for service rendered. The laws of the land say the railroads should get a "fair return" but, owing to the involved system of making rates, the railroads find themselves stymied. When they ask for an increase, the I.C.C. naturally takes testimony from the Post Office Department, and there have been substantial delays because the subject is one of great complexity. Likewise, the Post Office Department is faced with a deficit, anyway, so it hesitates to agree to any increases that augment its expenses.

The railroads, on the other hand, see their competitors—the airlines—being heavily subsidized. While they do not question the wisdom of keeping the airlines going, they do wonder why the railroads should be required to render service without even meeting actual costs. One railroad executive puts it this way:

"The government is subsidizing some activity through all the processes of the American economy. In transportation the barge lines are subsidized, and we pay taxes to make that up. It is true of the highways; it is true of the airways; it is true with all the various authorities. But the question is why, when all our competitors are subsidized, we should subsidize the government—and that is what we are doing when we haul mail at less than cost. For our present mail rates, even including the 25 per cent interim increase, and considering the 40-hour week to go into effect on the railroads, are just about half our costs."

The question of price and competition enters into the picture, too. Thus, the railroads aren't making any money out of handling express or out of handling mails. The more they try to raise their express rates to bring them up to a profit point, the more business they push over into parcel post. The same thing happens with less-than-carload freight. What it amounts to in the end is that the railroads subsidize the government so that it can handle parcel post at less than it costs the railroads to haul the same articles. This means the railroads are helping the government to compete with themselves on both parcel freight and express.

Senator Langer of North Dakota, who sponsored the resolution which the Senate has adopted, points out that parcel post rates are different on the airlines and the railroads and ships. He thinks the rates should be co-ordinated. The Post Office Department pointed out to the Senate that the inquiry proposed is interesting but that it is in the midst of a study of its own.

Meanwhile, the railroads, balked in their attempt to get some action, a few weeks ago filed a request with the I.C.C. seeking a 35 per cent further increase because the roads learned that the Post Office Department wouldn't be ready to present evidence before the commission from its own study until sometime in the middle of 1950.

The railroads, unlike private business, cannot of their own initiative increase their prices to meet operating costs. They have to wait on government agencies—and that is usually a long, long wait.

— Reprinted, by permission of David Lawrence Associates, from the Washington Star.

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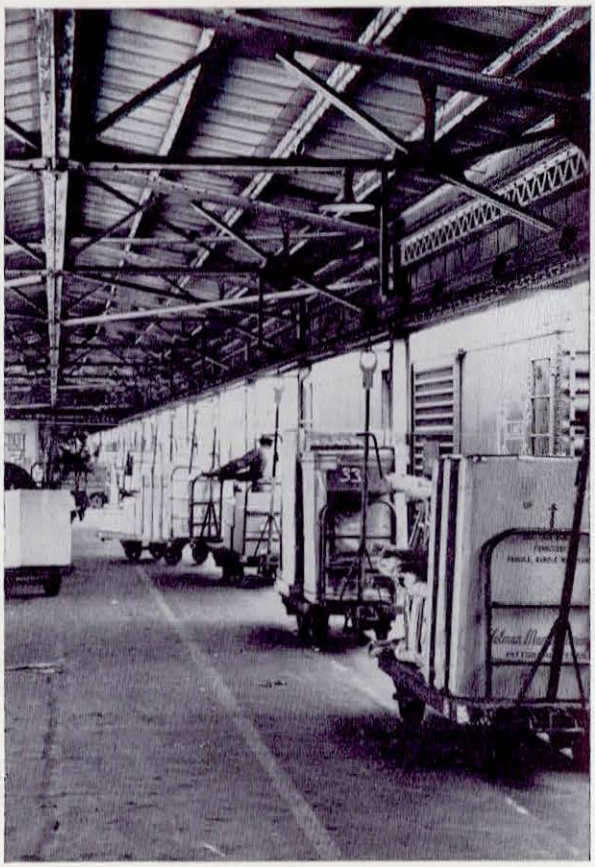
Overhead Conveyor



The Southern Pacific has recently completed the installation of a Link-Belt overhead truck-tow system at its Houston (Tex.) freight station. The conveyor system speeds operation, eliminates platform congestion, makes possible one-direction traffic flow, and reduces costs at the 160-car freighthouse built 22 years ago to serve a Houston which has since greatly expanded in size and industrial activity.

The overhead conveyor is used to transport freight from locations on the outbound platform to outbound cars; to handle transfer freight from inbound cars to outbound cars or highway trucks, and to relay inbound freight from the inbound tracks to the headhouse, for subsequent movement, by other means, to the street side of the inbound platform for city delivery.

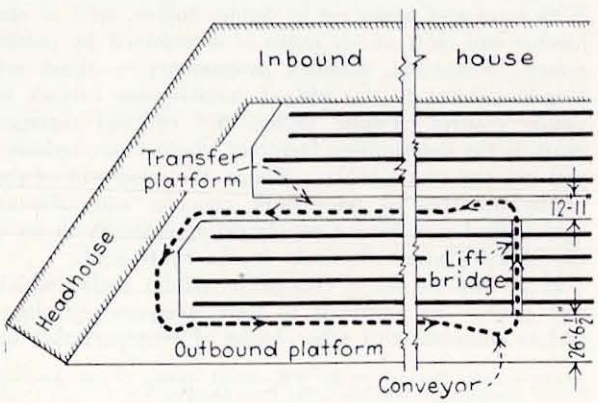
The new facility consists of a 2,030-ft. continuous rivetless chain operating on ball-bearing trolleys on a four-inch I-beam. Hooks are spaced at 15-ft. intervals for attaching four-wheel platform trailers. The conveyor speed is variable, from 60 ft. to 120 ft. per minute, for a capacity of 360 to 720 trailers an hour past a given point. As now set up, the chain makes a complete circuit every 19 min. It is powered by a 15-hp. electric motor.

Couplings between the trailers and the chain are made by a telescopic mast attached wagon-tongue fashion to the trailer. The mast is attached to the traveling chain by a crab-claw hook at the upper end. The conveyor system has a capacity of 135 trailers with an average

Above—Freight arriving on the outbound platform is loaded on four-wheel trailers which are attached to the overhead conveyor and propelled to outbound cars. Chalk numbers designate car "spots"

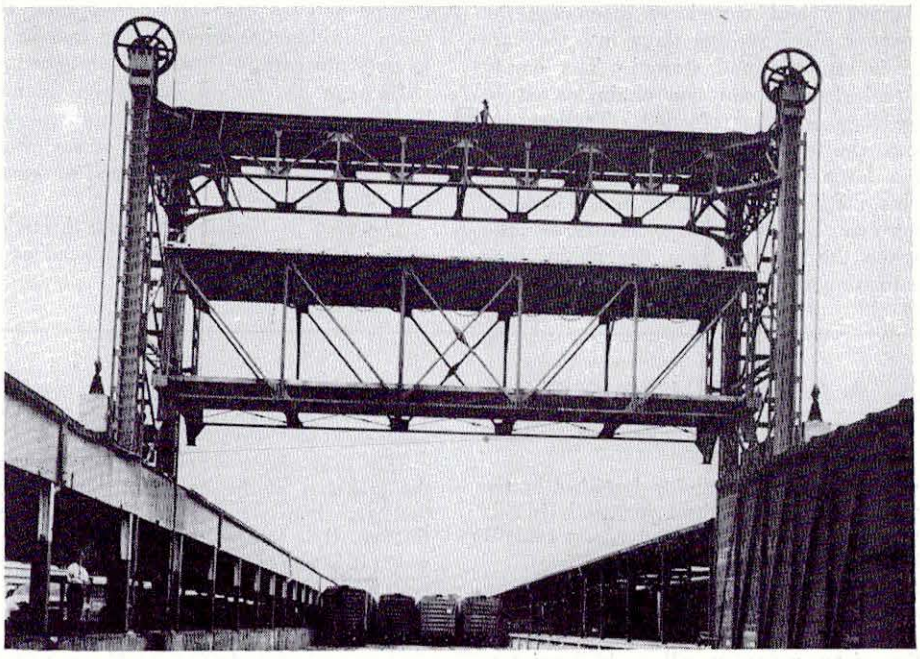
Left—A stevedore detaches a trailer as it passes the car into which the freight is to be loaded. Light pressure on the mast handle will disengage the trailer from the conveyor chain

Below—Houston freight station is E-shaped. The conveyor circuit is 2,030 ft. long



Expedites Freighthouse Operations

Truck-tow speeds loading and minimizes congestion with uni-direction flow at Southern Pacific's Houston freight station



A new transfer bridge between the outer end of the outbound platform and the transfer platform forms a link in the conveyor circuit

load of 1,500 lb. each, or a total average load of 202,-500 lb. There are 300 four-wheel trailers in use.

The outbound, transfer and inbound platforms at the S. P.'s Houston freight station are in the form of an "E," with the transfer platform in the center. There are four outbound tracks, with a total capacity of 80 cars, between the outbound and transfer platforms, and four inbound tracks of the same total capacity are located between the transfer and inbound platforms. The outbound platform is 26½ ft. wide and 1,140 ft. long. The island—or transfer—platform is 12 ft. 11 in. in width and 2,000 ft. in length. The inbound house is 43 ft. 10 in. wide and approximately 2,000 ft. long. All of the platforms are of concrete slab construction, and are at car-floor level.

One-Direction Operation

Prior to installation of the Link-Belt conveyor, freight was handled principally on trailers pulled by gasoline-motored tractors, supplemented by hand trucking. One of the problems was congestion, attributable in part to the fact that traffic moved in two directions on each platform. A maximum of 10 trailers was permitted for each tractor-trailer train, and the necessity of keeping an open path for two lines of traffic reduced the amount of platform space which could be used for the storage and sorting of freight.

Under the new plan, only a single lane is necessary. All traffic moves counter-clockwise, traveling along the outbound platform to the outer end, crossing to the transfer platform over a lift bridge—1,010 ft. from the headhouse—along the transfer platform to the headhouse, and around the platform adjacent to the headhouse, back to the outbound platform.

The lift bridge span is 48 ft. 11½ in. long and 12 ft. wide, with a concrete slab deck. When open, the span clears the top of rail by 22½ ft. The bridge—powered by a 45-hp. electric motor—is raised from 6 p.m. to 6 a.m. for the movement of railroad cars.

When the bridge is to be raised at the close of the business day, the conveyor is stopped and pins are inserted through links in the chain on each side of the span. The I-beam is then separated at both ends, slack is taken out of the chain by a 1½-ton capacity Coffin hoist, and the link is removed to permit rolling the chain back both ways from the span. The entire operation of connecting or disconnecting the chain takes

only 10 min., and the actual raising or lowering of the bridge 45 sec.

Safety switches prevent lifting the bridge until the chain is disconnected, and the track switch leading into the freight station is protected by an additional lock, the key to which is kept in a box at the bridge and is obtainable only when the bridge is raised, since the box is covered by the bridge when it is down.

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The overhead conveyor system keeps freight moving continuously, whereas, under the old system, it was loaded on trailers and would remain on the platform as long as 30 to 40 min. before tractors could get back to pick it up. The result was overcrowding of the platform with a consequent slowing down of operation. Freight towed by the conveyor moves currently and platforms are kept clear for the handling of freight as fast as it arrives on street trucks.

The conveyor enables the station forces to load all of the freight out every day, whereas—before the installation was made—it frequently happened that congestion late in the day necessitated the holdover of some merchandise which could not be handled to and loaded into cars in time for their scheduled pull-out.

Damage to freight has been noticeably reduced. Trailers are not loaded as high as was the former practice, and they are towed at a slower, uniform rate of speed, lessening the likelihood of damage by collision or upset in transfer.

The cost of handling freight through the station is reported to be substantially reduced as a result of the new system of operation.

MAIL RATES—A SUBSIDY IN REVERSE

By David Lawrence

There are plenty of instances of subsidy furnished by the government to private business but there apparently is only one conspicuous case in which a private business actually subsidizes the government.

This is what the railroads are doing in carrying the mails. So they are asking the Interstate Commerce Commission for an increase in mail pay. This has led to over-all study of the whole question of transportation policy with respect to the mails.

Now the Senate has just adopted a resolution authorizing an inquiry designed to find out how an equitable solution of the problem can be found, with particular reference to the fact that there are three different rates paid by the government for carrying mail.

For the government subsidizes the airlines and pays out more than 80 per cent of the revenue from airmail stamps to pay the airline companies. The Post Office Department, however, collects $668,000,000 a year from the public for first-class stamps and pays the railroads about $26,000,000. So that a very small fraction of the three-cent stamp goes to the railroads—that is, only 4 per cent of three cents—while the airlines get nearly all of the present six-cent airmail stamp revenue.

Not since the 1920's has there been a real study made of the problem. Meanwhile, operating expenses have gone up so that it costs the railroads, for instance, twice as much as it did then to carry mail. But they have not been able to get from the government a proper charge for service rendered. The laws of the land say the railroads should get a "fair return" but, owing to the involved system of making rates, the railroads find themselves stymied. When they ask for an increase, the I.C.C. naturally takes testimony from the Post Office Department, and there have been substantial delays because the subject is one of great complexity. Likewise, the Post Office Department is faced with a deficit, anyway, so it hesitates to agree to any increases that augment its expenses.

The railroads, on the other hand, see their competitors—the airlines—being heavily subsidized. While they do not question the wisdom of keeping the airlines going, they do wonder why the railroads should be required to render service without even meeting actual costs. One railroad executive puts it this way:

"The government is subsidizing some activity through all the processes of the American economy. In transportation the barge lines are subsidized, and we pay taxes to make that up. It is true of the highways; it is true of the airways; it is true with all the various authorities. But the question is why, when all our competitors are subsidized, we should subsidize the government—and that is what we are doing when we haul mail at less than cost. For our present mail rates, even including the 25 per cent interim increase, and considering the 40-hour week to go into effect on the railroads, are just about half our costs."

The question of price and competition enters into the picture, too. Thus, the railroads aren't making any money out of handling express or out of handling mails. The more they try to raise their express rates to bring them up to a profit point, the more business they push over into parcel post. The same thing happens with less-than-carload freight. What it amounts to in the end is that the railroads subsidize the government so that it can handle parcel post at less than it costs the railroads to haul the same articles. This means the railroads are helping the government to compete with themselves on both parcel freight and express.

Senator Langer of North Dakota, who sponsored the resolution which the Senate has adopted, points out that parcel post rates are different on the airlines and the railroads and ships. He thinks the rates should be co-ordinated. The Post Office Department pointed out to the Senate that the inquiry proposed is interesting but that it is in the midst of a study of its own.

Meanwhile, the railroads, balked in their attempt to get some action, a few weeks ago filed a request with the I.C.C. seeking a 35 per cent further increase because the roads learned that the Post Office Department wouldn't be ready to present evidence before the commission from its own study until sometime in the middle of 1950.

The railroads, unlike private business, cannot of their own initiative increase their prices to meet operating costs. They have to wait on government agencies—and that is usually a long, long wait.

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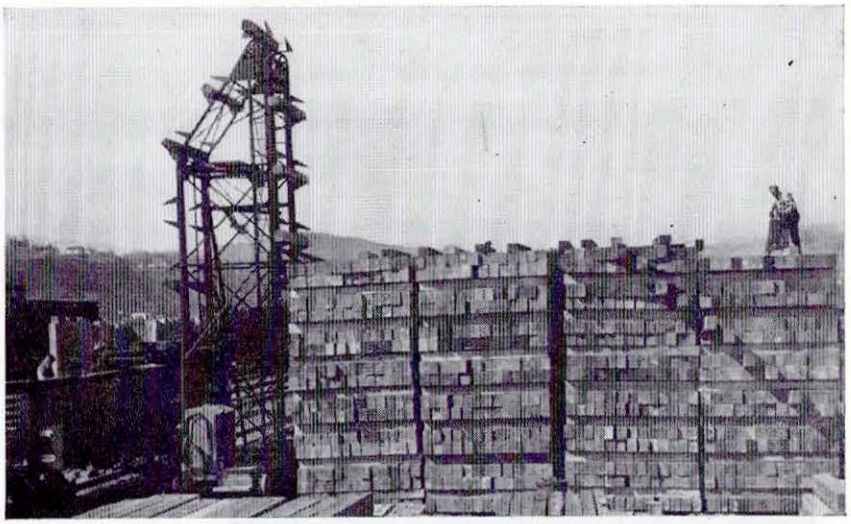
New and Improved Products of the Manufacturers

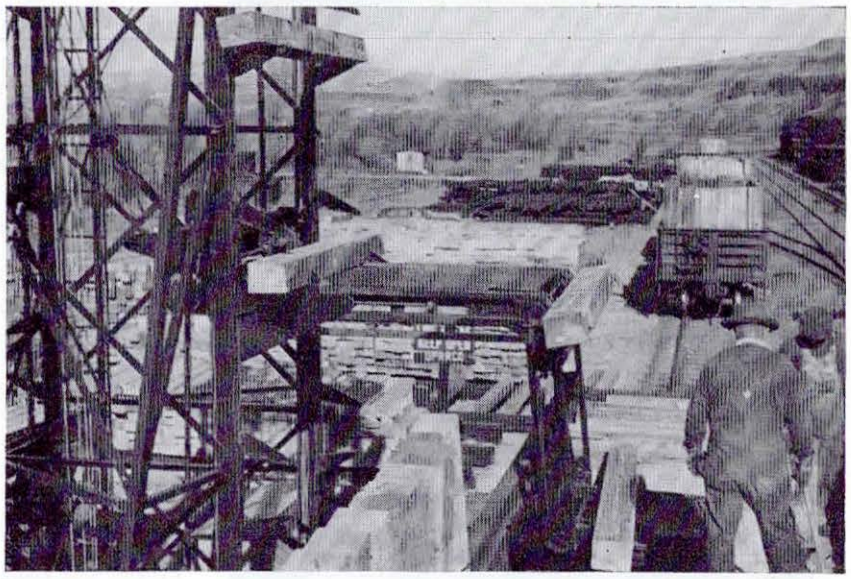
STEMM TIE PILER

Stemm Bros., Inc., Leavenworth, Wash., is introducing a tie-handling machine, by means of which (along with an auxiliary conveyor) four men, with no manual carrying at all, can unload ties from box cars or gondolas at the rate of 10 to 16 per minute and pile them three stacks wide, 30 ft. high, and to a depth of 100 ft. or more. It can also be used with equal effect in the reverse operation, i.e., handling ties from storage into cars.

This Stemm Tie Piler consists essentially of a welded steel tower, 33 ft. high, mounted on a carriage with four flanged wheels which operate on a 72-in. gage track laid along the tie piling area; a half-ton stake hoist which travels upward on the car side of the tower and downward on the other; and a retractable infeed, or conveyor, which delivers the ties from the car to the stake hoist. The machine, which incorporates a 5-ton car mover, can itself travel either forward or reverse at a speed of 3 m.p.h.

With the unit spotted opposite the desired stack location, the infeed is extended into a gondola or box car in such a way that ties can be pulled onto it by picks or hand tongs without manual carrying. The infeed conveys the ties to the stake hoist where they are picked up, one by one, and carried up over the top of the tower and down the opposite side. As each down-coming tie reaches the stake level, it is picked up by an auxiliary gravity wheel conveyor, which carries it back from the machine to the portion of the stack being built up. The auxiliary conveyor is made in sections which can be quickly attached or detached while the machine is in operation. All operations of the machine are under push-button control.





Above—The Stemm Tie Piler in operation. The ties are carried back from the machine on sectional gravity wheel conveyors. Below—The car side of the Stemm Tie Piler, showing the retractable infeed

NEW DEVELOPMENT IN PRESERVATION

As the result of a cooperative research program on wood preservatives, Koppers Company, Pittsburgh, Pa., and E. I. du Pont de Nemours & Co., Philadelphia, Pa., have developed a new wood preservative, Copperized chromated zinc chloride.

Results of various tests to evaluate the new preservative were as follows:

Leach Block Tests — These indicate that Copperized CZC will resist leaching better than CZC. Furthermore, it appears that the addition of cupric chloride does not chemically alter the CZC; the latter retains its usual preservative, fire-retardant and leach-resistant qualities and is improved by the high toxicity and leach resistance of cupric chloride.

Hardware Corrosion Tests — The corrosion of hardware in contact with wood treated with either CZC or Copperized CZC is very slight and is essentially of the same magnitude in either case.

Accelerated Service Tests — In all cases it was found that the addition of cupric chloride to CZC improved the preservative value of the compound.

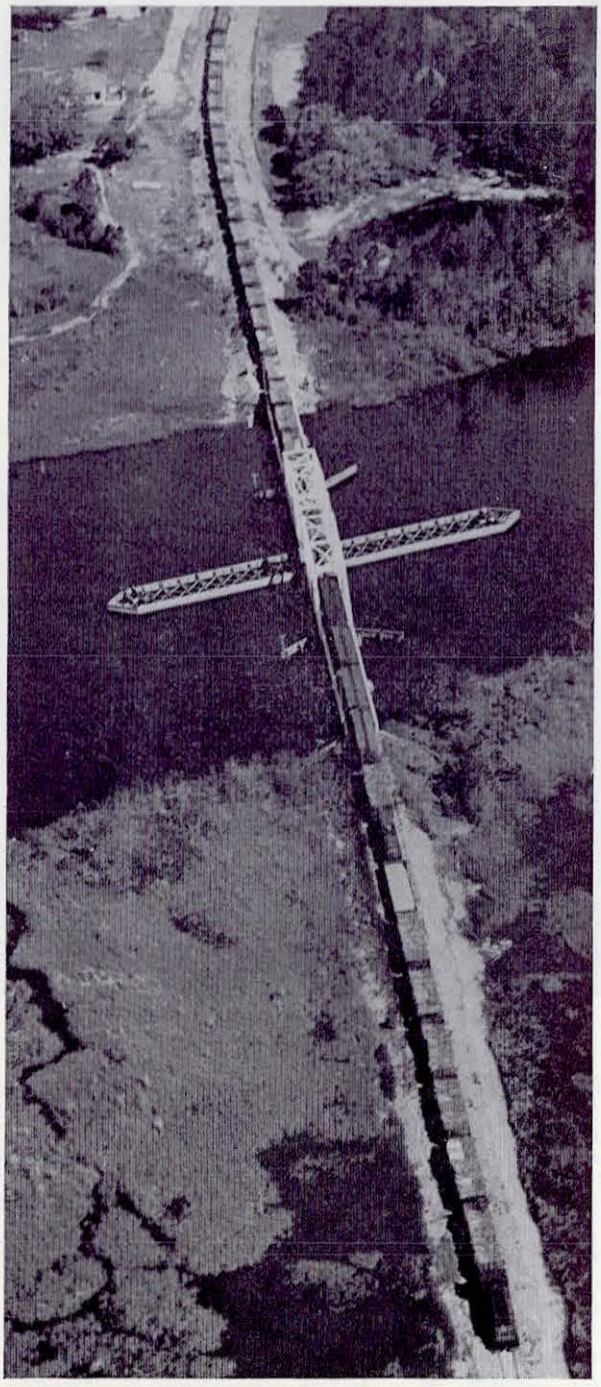
Pilot Plant Treatments — The preservative proved in these treatments to be similar, in handling, treating and control of the solution equilibrium, to CZC and other salt preservatives containing more than one type of toxic ion.

Strength Tests — Results indicate that treatment of wood with Copperized CZC is not detrimental to static-bending, compression, shear and hardness values of wood.

Glow Tests — The results indicate that Copperized CZC does not impart severe glowing characteristics to wood; glowing in wood treated with Copperized CZC is similar to that treated with CZC.

Pascagoula Builds a Ship Channel

Unlike other waterway projects, this one is being paid for without "federal aid"



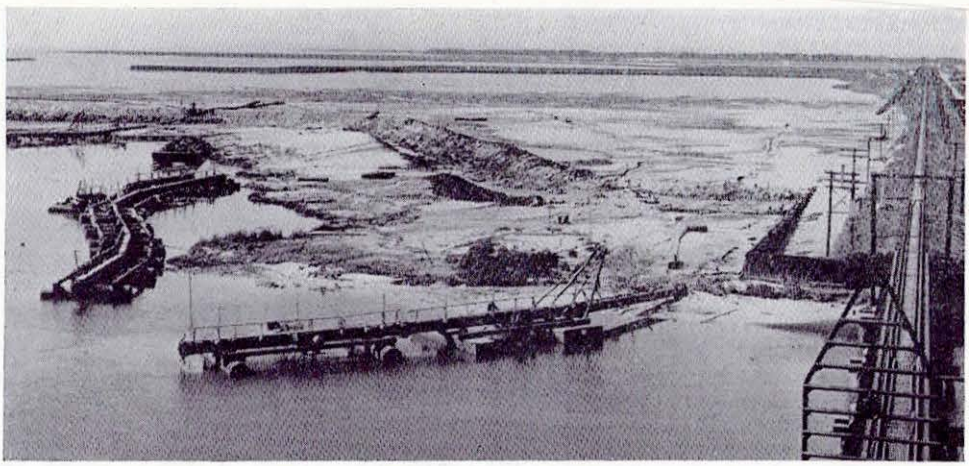
The Mississippi Export line crosses the Escatawapa river to reach Pascagoula from the north

The government, through namby-pamby socialistic policies, is destroying the greatest American heritage —initiative, Bill Herring told the Rotarians in his native city a few weeks ago. Bill isn't a Republican from Maine or Minnesota; he's a native Mississippian, president of the Pascagoula-Moss Point Bank. Moreover, he practices what he preaches, for it was during "coffee hour" at his bank that the idea of making Pascagoula an important seaport—without the aid of federal funds —was born. Between ten and eleven each weekday morning, leading citizens of the two adjacent cities gather in the directors' room of the bank for a "cracker barrel" discussion of their mutual problems. It did not seem to them that a waterway to be built without the financial support of the federal government was an unnatural idea, in which they are in complete disagreement with the proponents of dozens of other waterway schemes now being advocated throughout the country, who are loudly demanding "federal aid."

Considerable War-Time Activity

During the war, the Pascagoula-Moss Point area in Jackson county developed considerable industrial activity. The Ingalls shipyards turned out more than 125 ships, ranging from aircraft carriers down, while several smaller shipyards in the area were building lesser craft for the Armed Forces. Even a local company that is famous among hunters the world over for manufacturing decoy ducks was converted to wartime activity and made oars and paddles on government contracts. As a result of all this activity, Pascagoula jumped in population from 5,800 to 44,000, while Moss Point, four miles distant, increased from 2,500 inhabitants to 6,500. Following V-J day, the war workers departed in droves, but some 16,000 people still remain in the two cities, employed by the shipyards, the menhaden fish oil plants, the textile and paper mills and smaller industries.

The business men of the area were concerned lest the population of the area should dwindle further. As early as 1944, they had organized the Pascagoula-Moss Point Chamber of Commerce to promote postwar industrial activity. They insisted that this section of the Mississippi Gulf Coast has many advantages to offer industry, particularly if Pascagoula could be made into a seaport to accommodate large vessels. The city is only nine miles from deep water, permitting a rapid turn-around of ships that would represent a large saving to their owners. There already was in existence a ship channel that had been dredged by the Navy during the war, but as it was only 22 ft. deep and 225 ft.



A large area for industrial plant sites was filled in south of the main line of the Louisville & Nashville at Pascagoula

wide it was not adequate for handling large freighters.

It was these circumstances that led "coffee hour" citizens to get together and propose a plan.

The project was carried out quickly, and an improved ship channel is now rapidly nearing completion. It begins in Pascagoula, extends for over a mile to the mouth of the Pascagoula river, then traverses shallow Mississippi Sound and reaches the deep waters of the Gulf through a "pass" between two islands. It is being dredged to a depth of 31 ft., and a width of 275 ft., with a channel 35 ft. deep and 325 ft. wide across the bar at the pass, where wave action requires that ships have more room.

Financing the Project

The men behind the project did not sit back and appeal for federal funds. First they went to the Mississippi state legislature. Pointing out that, at the height of the shipbuilding activity, more than 75 per cent of those employed were Mississippians, they demonstrated, county by county, how much of the shipyard's wartime payroll of more than $100 million had gone back to every county in the state. They pointed out that, if the channel were dredged, the shipyard could enter the bidding for repair and maintenance contracts for Navy, Army and Maritime Commission work, which would not even be considered with the existing channel. The state legislators appropriated $250,000 and the project's backers then proceeded to add $500,000 of local money to this appropriation, through the sale of Jackson County bonds for the purpose.

The financing was completed in April, 1948, and in less than a year the channel was practically completed. In addition, a large turning basin has been constructed in the Pascagoula river. A bayou on the west bank has been filled and the bank of the river, from the main line of the Louisville & Nashville south to the mouth, has been raised 12 ft., through dumping and spreading the dredged material on it, thus making available an area for industrial sites 1¾ miles long and 1,000 ft. wide, in immediate proximity to both rail and water transportation.

The city of Pascagoula already owned docks on the east bank of the river, which were almost exclusively used by tows and barges plying the intercoastal waterway along the Gulf of Mexico. These docks are also being improved and a dock warehouse, with 40,000 sq. ft. of floor space, is to be constructed.

A Very Solvent Railway

In addition to the L. & N., the new port is served by the Mississippi Export, a 42-mile railway extending between Pascagoula and Lucedale, Miss., where a connection is made with the main line of the Gulf, Mobile & Ohio. The M. E. is an early example of the civic enterprise in the Pascagoula-Moss Point area. Originally a logging line, which served Moss Point in the days when that town called itself the largest lumber port in the world and the home of no less than eight lumber millionares, the little railway fell into bad days after the timber in the area was exhausted. It was faced with obliteration until the local citizens rallied around and kept it alive by local subscription. Some chipped in $2 and some $200, more through civic pride than with any hope of gain, and thus stopped the sale of the line for junk. As a result of the location of a large paper mill and other industries on the line, and, of course, a tremendous wartime traffic, plus efficient operation (the operating ratio of the M.E. was 60 in 1948), this railway since 1936 has paid substantial dividends to its shareholders. It is completely Dieselized and, as the result of the purchase of large quantities of ties and rails from the War Surplus Administration, is in the finest physical shape of its history.

Still Planning

The citizens of Pascagoula have further plans, when the money is available, for constructing a slip along the west bank where large vessels may dock, but their immediate objective is to promote the location of more industries on the sites available where such industries can build their own wharves and docks.

W. R. Guest, executive vice-president of the Ingalls Shipbuilding Company, and one of the port commissioners, explained the idea behind the port development. "We don't want this to be a political football and mixed up with federal, state or local politics. We want this port to be a place where private enterprise will have the chance to flourish under its own steam."

GENERAL NEWS

T. A. A. Asks "Collective Action" on Reparations

Says "repudiation" suits could "destroy enterprise system"

Declaring that the suits of the anti-trust division of the Department of Justice to recover 2½ billion of alleged overcharges on wartime traffic handled by railroads represent a direct repudiation of government agreements and a broadside attack to force nationalization of all transportation, Donald D. Conn, executive vice-president of the Transportation Association of America, has appealed for collective action of all farm, trade, and civic organizations to stop the use of federal power to destroy the free enterprise system.

In a personal letter to 5,200 leaders of farm and trade groups, business organizations and chambers of commerce, he says:

"If a bill to nationalize all transportation were introduced in Congress, it would be dealt with, in summary fashion, by unanimous opposition of all enterprise. Just as grave in its implications is the assault of the anti-trust division of the Department of Justice against the railroads for recovery of 2½ billions in *alleged* overcharges on wartime shipments.

Broad Public Interest Involved

"The association believes this attack involves a broad public interest; therefore, it has asked leave to intervene in the proceedings before the Interstate Commerce Commission. As could be expected, the division requested the commission to deny our petition . . . But, fortunately, for the public interest, the commission over-ruled the objections of the division.

"What are the facts?

"1. The War Department and the railroads agreed on what the rates should be for handling munitions, equipment, and supplies.

"2. The level of these agreed rates was far less than paid on commercial traffic.

"3. A large portion of the charges paid by government have already been returned to the federal treasury through income and excess profits taxes.

"Suppose a carload of munitions, because of its heavy weight, did earn a revenue much higher than a carload of commercial traffic, it all went into making up the total gross revenue which, after expenses were deducted, left the railroads only 4.6 per cent on their net investment for the entire war period. No one claims this net return was too high. Now, four years after VJ day, the commission is, in effect, asked to determine whether the government paid too much and the commercial shipper paid too little.

What is the Ultimate Objective?

"There is far more involved in these suits than the mere legal adjudication as to whether a rate agreed upon at the time was or was not reasonable. Why, now, would the anti-trust division propose to repudiate such agreements? Who planned such attacks? What is the o-tive? What is the ultimate objective of these suits? These are the questions to which we seek adequate answers. They are questions which involve you and every business enterprise in this country.

"Federal laws and procedures are designed presumably to protect the public interest. No one argues about that. But how long will the farm and business leaders of this country sit idly by and permit this use of federal power to destroy the enterprise system? The railroads, being a convenient political football for the past 50 years, are now singled out as the most vulnerable segment of that system.

"This association is concerned with the public interest in adequate, efficient, and low cost transportation of all kinds. It is not interested in the competitive conflicts between the different forms of transport nor in promoting one against the other. But it recognizes that any major political attack against any one form of transport could easily lead to government ownership of all forms."

Clarence F. Lea, director of governmental relations of the T.A.A., and former chairman of the interstate commerce committee of the House of Representatives, will represent the association before the I.C.C.

Time Zone Inquiry

The Interstate Commerce Commission has reopened its general Standard Time Zone Investigation for the purpose of determining whether previous orders in the proceeding (No. 10122) should be modified so that Hamilton County, Tenn., or any of the remainder of that state now in the Central Time zone, should be included in the Eastern Time zone. The reopening was in response to a petition filed by the Chamber of Commerce, Junior Chamber of Commerce, and Retail Merchants Association of Chattanooga, Tenn.; and the reopening order stipulated that anyone wishing to make representations on the matter may do so by submitting presentations to the commission in writing on or before July 10.

Rules for Brokers Selling Motor Freight Service

Division 5 of the Interstate Commerce Commission has issued a report prescribing rules and regulations governing the practices of brokers engaged in selling motor freight service. The report was in Ex Parte No. MC-39, and the rules apply to all brokers in the motor transport field, except those brokering exclusively the transportation of passengers and their baggage.

Waybill Studies

Two additional waybill studies have been issued recently by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. They are: Statement No. 4918, Distribution of Freight Traffic and Revenue Averages by Commodity Classes—Terminations in Third Quarter of 1948; and Statement No. 4920, State-to-State Distribution of Tonnage by Commodity Groups—Terminations in Fourth Quarter of 1948.

Claim Agents Meet at Asheville

The Association of Railway Claim Agents recently held its sixtiet'ı annual meeting at Asheville, N. C., with H. A. Fathauer, assistant general claims attorney of the New York Central and president of the association, presiding, and the following topics highlighting the business sessions:

Psychology and Its Practical Application in the Adjustment of Claims, by J. Forest Jamison, claim adjuster, Norfolk & Western; Discussion of Section 1404(a), Title 28, U. S. Code, by James A. Weems, Richmond, Va., attorney; Interesting Sidelights on Railroad Litigation by Wayne Ely, division counsel, Gulf, Mobile & Ohio; Inspection of Tools, Equipment and Premises in Relation to Claim Investigation Immediately Following the Occurrence of an Accident, by A. A. Ische, adjuster, Chicago, Milwaukee, St. Paul & Pacific; Some Reflections on the Claim Picture in Canada by F. W. Kernaghan, general claims agent, Canadian Pacific; Recent Trends and Decisions of Federal Employers' Liability Act, by Drennan Slater, assistant general solicitor, Chicago & North Western; Orthopedic Consultation

in Railroad Injuries, by Dr. Ernest Celli, assistant chief surgeon, Illinois Central; and What Can Be Done to Prevent the Upsetting of Releases on the Grounds of Fraud or Mutual Mistakes, by Smith R. Brittingham, senior general attorney, Seaboard Air Line.

E. N. Muldoon, general claims attorney of the Chicago North Shore & Milwaukee, was elected president of the association to succeed Mr. Fathauer, with the following elected as vice-presidents: K. A. Carney, chief claim agent, I. C., W. J. Crecelius, general claims agent, Louisville & Nashville, and Mr. Kernaghan. F. L. Johnson, general claim agent, G. M. & O., was re-elected secretary-treasurer.

Kansas City, Mo., was selected as the site of the association's sixty-first annual meeting in 1950, and New Orleans, La., as the location of the 1951 convention.

Dr. O. H. Horrall New Chairman Of A.A.R. Medical Section

Dr. O. H. Horrall, chief surgeon of the Chicago, Burlington & Quincy, was elected chairman of the Medical and Surgical Section of the Association of American Railroads at the section's twenty-ninth annual meeting at Atlantic City, N. J. Dr. Horrall succeeds Dr. R. M. Graham, director, department of sanitation and surgery, Pullman Company; and has in turn been succeeded as vice-chairman of the section by Dr. Fuller Nance, medical and surgical director of the Baltimore & Ohio. J. C. Caviston continues as secretary.

William White, president of the Delaware, Lackawanna & Western, was guest speaker at the meeting, which was featured by a panel discussion on railroad medical problems, led by Dr. Graham, and by reports of committees on developments resulting from physical examinations, Dr. Horrall, chairman; on fractures, Dr. Duncan Eve, chief surgeon, Nashville, Chattanooga & St. Louis, chairman, and disability and rehabilitation, Dr. R. G. Carothers, chief surgeon, Cincinnati, New Orleans & Texas Pacific, chairman.

Cites Inequalities In Rail and Truck Taxes

"Rail transportation today is a smaller proportion of the cost of most goods than it was in 1939," said William G. White, general superintendent of the Delaware, Lackawanna & Western, in addressing the Traffic Club of North Jersey at Paterson on June 13. "As an example, to move a carload of wheat, cotton or coal to market today takes the proceeds of only one-half as many bushels, bales or tons as it did before the war."

Mr. White also cited inequalities as between rail and motor transportation caused by high taxes paid by railroads partly for maintenance of commercially-used highways. He told the audience that during the seven years ended in 1947, federal, state and local governments had spent $53 billion for highways, waterways and airways, while during that period the railroads had spent $27 billion of their own funds for construction and improvements.

"In New Jersey," continued Mr. White, "a truckman's license costs less than in surrounding states. Gasoline taxes also are less; and there is no legal limit to axle loading of trucks. Furthermore, there is no checking arrangements for control of those few New Jersey laws which regulate trucking on highways. The distressing part about this situation is that the trucks, by and large, are not in competition with the railroads as a whole, but compete for business only where it offers the most lucrative income."

This Applies In the United States, Too!

"Too many people fail to realize that railways are common carriers, while highway transport operators are not. That means that a railway company must be prepared to furnish transportation for any goods which can possibly be handled on railway cars, from every point on the railway to every other point. The operators of highway vehicles have the privilege of selecting those goods which they will transport, and of refusing to handle any form of traffic from which they could not hope to obtain an adequate return.

"Thus, when the agent of a highway transport organization approaches one of you to solicit traffic, he does not say to you that he will furnish you with a service equivalent to that which you can obtain from the railway company, at such rates that your total cost of transportation will be less than that which the railway would charge. He merely comes to you and says that he will move certain of your goods for you at a lower rate than the railway offers. . . . This sort of thing, if carried far enough, may make it impossible for the railways to furnish you the transportation of the goods which the highway operator does not happen to want to carry, except at a great increase in rates, so that, in the end, your total transportation bill will not be reduced, but may even be increased. . . .

"The common carrier—the operator of transportation who must take all forms of traffic which are offered him—is at a desperate disadvantage as compared with the competitor who can step in and select the cream of the traffic to move, leaving the skim milk to the common carrier.

"Owing to the lack of adequate regulation of highway transport, owing to a failure to realize the importance of preventing selective competition on a subsidized basis with essential common carriers, highway transport has been permitted to deprive the railway companies of some of their most lucrative traffic—with the net result that the total cost of transportation to the people of Canada has been increased—even if the traffic diverted to the highways in this fashion has been moved, in some cases, at rates lower than those which the railway companies would have been bound to charge."

—From an address to the Canadian Industrial Traffic League (Niagara district) by P. C. Armstrong, economic consultant, Canadian Pacific

Canadian Railway Earnings "Dangerously Low"—Mather

The present level of freight rates is "below the true economic cost of rail transportation." President W. A. Mather of the Canadian Pacific told the 78th annual convention of the Canadian Manufacturers' Association at St. Andrews-by-the-Sea, N. B., last week.

Elsewhere in his speech he declared that those who believe in the private enterprise system should first tell their fellow citizens why they believe in it, "then do everything in their power to maintain the conditions under which the free economy can grow and prosper."

As a result of rising costs in the railway field, Mr. Mather said, "our net earnings are at an unhealthy and dangerously low level."

In order to keep up with technical advances, he continued, the railways must make substantial capital expenditures over a period of years; and to obtain the required capital their position must be such as to attract capital investment. But current stock quotations indicate that investors lack confidence in the C.P.R., he said, and the blame lies largely with the "artificial restraints which have prevented rail transportation prices from finding their natural economic levels."

He said rates are set at levels calculated to induce volume traffic where that is possible but consistent with the principle that rates must be compensatory to the railways. Some regions feel that "competitive rates are unjustly discriminatory, and should not be allowed unless made universal," he said, but the railway, in making a competitive rate does not create a transportation advantage for particular shippers, but simply recognizes that the advantage already exists. To extend competitive rates to large volumes of traffic where they are not required, Mr. Mather contented, "would be ruinous to the railways unless they were compensated in some other way."

I.C.C. Will Reconsider Charge For Unloading Fruits at N. Y.

The Interstate Commerce Commission has reopened for rehearing the case wherein its report of last October authorized railroads serving New York and Philadelphia, Pa., to establish on November 1, 1948, charges for unloading carload shipments of fresh fruits and vegetables in those cities. The proceeding is I. & S. No. 5500, and the re-

opening had been sought in several petitions, including those of the Secretary of Agriculture, the Florida Railroad and Public Utilities Commission, and associations representing interested shippers. The reopening order said that the time and place of the rehearing would be fixed later (see *Railway Age* of October 30, 1948, page 97).

Eastern Fare Case Set For Hearing July 13

Hearings in connection with the Interstate Commerce Commission's consideration of basic fare increases proposed by eastern railroads will be held before Commissioner Rogers and Examiner Burton Fuller on July 13 at the Hotel St. George, Brooklyn, N. Y. As noted in the *Railway Age* of June 11, page 54, the railroad petition, which the commission has docketed as No. 30256, proposes to raise the basic fares by 12½ per cent, or from 3 cents to approximately 3.375 cents per mile in coaches, and from 4 cents to 4.5 cents per mile in sleeping and parlor cars.

The petition also proposes to make like percentage increases in excess-baggage charges, round-trip fares, and multiple-ride fares (other than commutation). The minimum increases in all fares involved would be 5 cents, and the minimum one-way fare would be 20 cents.

Another notice from the commission announced that on July 12, the day before the hearing on the above petition, Commissioner Rogers and Examiner Fuller will hold a hearing, also at the Hotel St. George in Brooklyn, on the fare-increase petition filed earlier by trustees of the Long Island. That petition, docketed as No. 30257, requests authority to increase the L.I.'s portion of interstate fares by 16 2/3 per cent, or to approximately 3.5 cents per mile in coaches and 4.66 cents per mile in parlor cars. The proposed increase would apply "to all basic interline fares, including round-trip fares, the scale of fares for distances under 15.5 miles, and accessorial charges predicated upon basic fares."

Rules C.&S. Does Not Owe Taxes Claimed by Government

A three-judge federal court at Denver, Colo., has decreed that the Colorado & Southern (part of the Burlington Lines) is not liable for some $3,000,000 in additional income and excess profits taxes claimed by the government for the years 1942 and 1943. The taxes were proposed in a revenue agent's report delivered to the railroad on September 17, 1946—nearly 3½ years after a plan of adjustment had been approved for the railroad without the government having made any request for modification with respect to taxes, or otherwise.

The revenue agent's report undertook, among other things, to change the consolidated income tax and excess profits tax returns of the C. & S. and its affiliated and subsidiary companies for the years 1940 to 1943, inclusive, and to employ different principles and practices in calculating and computing the company's taxable income. The court censured the government for not presenting its claims "when duly notified that the plan of adjustment was under consideration by this court." In addition to finding that "no income taxes or excess profits taxes for the year 1942 are owing, due or payable to the United States," the court stipulated figures to be used in determining the consolidated taxable income, if any, of the C. & S. for the year 1943. It further declared that the United States, in calculating and computing the carry-over net operating loss deductions, the carry-over excess profits credits and the taxable income of the railroad and its subsidiaries for the period from 1940 to 1943, inclusive, is "estopped, barred and precluded" from using principles and practices different from those ordered by the court.

Arouse Public to Railroads' Plight, Says Katy Chairman

"There is nothing wrong with the railroads so far as their physical plant and progressive managements are concerned, but there is something wrong in the treatment they receive, and in the thinking of the public, which lacks the facts to make a true appraisal of the situation in which the railroads are involved," R. J. Morfa, board chairman of the Missouri-Kansas-Texas, declared in an address last week at Fort Worth, Tex., before the traffic club of that city. He added that freight rates can be lowered when the public has a true understanding of the facts and is sufficiently aroused to give the railroads a "square deal."

Attacking the subsidization of competitive forms of transportation, Mr. Morfa stated: "Railroaders are red-blooded, hard-headed, realistic individualists. Any competitors who pay their own way are regarded as wholly fair, and we will be glad to match our abilities with theirs in fair competition."

"It is our earnest hope," Mr. Morfa also said, "that enlightened labor leaders will correct the abuses that some in their ranks are trying to perpetrate in the form of 'featherbedding' rules. It is for their own welfare, as well as that of the railroads, that they should do away with these abuses. . . . Railroad employees have a great stake in the growth, survival, vigor and security of the railroad industry. If they expect to continue to merit a large share of railroad earnings, they must make some contribution toward efficient and profitable operation. They can do this by foregoing demands for wage increases if they are not earned, and by giving full value for the wages received. A healthy, profitable railroad industry is the best assurance railroad employees can have for sustained good wages and security in their jobs."

Industrial traffic men, Mr. Morfa stated, are "partners" of railroad management in seeing to it that the railroads get a square deal; "this certainly is for your own good, as well as the good of the railroads and of the nation as a whole."

Task Group of Resources Board Making Port Studies

A survey of each principal seaport in the United States, with the object of determining that port's maximum tonnage potential in the event of war, has been launched by a special task group of the National Security Resources Board. Results of the survey will be considered in the preparation of a report to Presidential Assistant John R. Steelman, acting chairman of the board, by Captain Granville Conway, director of the board's Office of Transport and Storage

General Robert H. Wylie of San Francisco, Calif., manager of the Board of State Harbor Commissioners, presided at the task group's organization meeting. "It is obvious," he told the group, "that national security prevents the assignment or allocation to any port of a specific amount of tonnage representing its probable war load, inasmuch as such information would indicate the general areas of possible conflict as well as the nature of the plan. However, we can and will develop a mobilization plan for each port based on the maximum capability of all transport agencies serving the port. Then, whatever the size or kind of the shipping requirements in a future emergency, each port will be able to render maximum support to the war program."

Participating in the meeting were representatives of a number of other task groups organized to consider the problems of mobilization in the various fields of domestic and overseas transport, including the use of terminal and storage facilities in the ports. Colonel Merle J. Reynolds, director of the Plans Division in the Office of Transport and Storage, served as secretary of the special task group.

Others taking part in the meeting included: John V. Lawrence, managing director, American Trucking Associations; Henry F. McCarthy, vice-president, traffic, New York, New Haven & Hartford; and George C. Randall, manager Port Traffic, Association of American Railroads.

Charles O'Hara Receives Honorary LI.D. Degree

Charles O'Hara of Shorewood, Wis., a pioneer in refrigerated railroad shipping, was awarded the honorary degree of Doctor of Laws at the 1949 commencement exercises of Marquette University in Milwaukee, Wis., on June 11. A native of Ireland, and long the chairman of Marquette's board of governors, Mr. O'Hara is a past president of the Merchants Despatch Transportation Corporation and of the Northern Refrigerator

Lines. He is now a director of those organizations. The degree was conferred by the Very Rev. Edward J. O'Donnell, S.J., Marquette president.

Alco-G.E. Gas Turbine-Electric Completes Preliminary Tests

The fir t gas turbine-electric locomotive to be built and operated in the United States, an Alco-G.E. 4,500-hp. unit, has completed preliminary road tests and will see further service soon on the Union Pacific. The preliminary tests were made in the East over a period of several weeks, during which the developmental locomotive performed successfully on freight runs. Additional road trials will get under way next month when the unit is operated in freight service by the U. P.

These announcements were made jointly by the General Electric Company and the American Locomotive Company at the G.E.'s Erie, Pa., plant during the first public track demonstrations on June 16 of the locomotive, which first took to the rails last November.

Railroad officers, members of the press and representatives of both companies convened at Erie June 16-17 for the second Alco-G.E. Railroad Executives' Conference. Highlighted by exhibition runs of the locomotive, the two-day session was an outgrowth of a similar conference at Schenectady, N. Y., in March, 1948, when the gas turbine power plant was first shown.

Both Charles E. Wilson, G. E. president, and Robert B. McColl, president of Alco, described the completion of preliminary operating tests as another step in the locomotive research projects of their companies. They reiterated earlier statements to the effect that the Diesel-electric locomotive, "for the foreseeable future," will continue to be the prime source of new rail motive power.

G. W. Wilson, manager of General Electric's locomotive and car equipment divisions, told those attending the conference that "What we have seen so far of this new locomotive looks promising, but a great deal of exploring remains to be done." He added that trials on the U.P. will be helpful in evaluating the potentialities of gas turbine powered locomotives, but said also that factory and operating tests must be continued on a long-range basis before "the ultimate possibilities of this new type of rail power can be completely evaluated."

Alco-G.E. spokesmen previously had expressed hopes that special research efforts, joined with experience to be gained from operation of this first locomotive design, may lead to the development of successful means of burning coal in a gas turbine-electric locomotive. They said that Alco-G.E. is cooperating with the locomotive development committee of Bituminous Coal Research toward that end. The gas turbine currently is fired by Bunker C oil.

The locomotive is of single-cab construction with an operating station in each end and has B-B-B-B running gear. It develops 53-hp. per foot of length, weighs 500,000 lb. and has a continuous tractive force of 68,500 lb. at 20.5 m.p.h. It is 83 ft. 7½ in. long inside of knuckles, 14 ft. 3½ in. high over roofsheet and 10 ft. 7 in. wide over hand rails. Geared for 79 m.p.h., the locomotive carries enough fuel for 12 hours operation at 4,500 hp.

The power plant, consisting of compressor, combustion chamber and turbine, drives the generators through reduction gearing and electrical energy is supplied to eight traction motors, each of which drives one of eight axles. The announcement of the first demonstration of this locomotive appeared in *Railway Age* for March 20, 1949, page 554, and an article describing the power plant tests appeared in the January 15, 1949 issue, page 172. A detailed description of the locomotive will appear in a subsequent issue.

Preliminary road tests of the 4,500-hp. Alco-G. E. gas turbine-electric locomotive included hauling 85 loaded freight cars at speeds as high as 65 m.p.h.

Pullman Employee Magazine Wins National Contest

For having played a major role in organizing an extensive sales campaign which resulted in $2,600,000 additional revenue in 1948, The Pullman News, employee magazine of The Pullman Company, won top honors in a national contest conducted recently to determine the most effective use of house organs. During the campaign, over 800 employee-management conferences were organized on the employees' own time, with attendance averaging 98 per cent or better. Suggestions originating during the drive averaged in excess of one for each three employees.

The contest was conducted by the Southern California Industrial Editors Association of Los Angeles, Cal., which stipulated that editors of magazines furnish documentary evidence of how their house organs "paid off" in benefits to employees and to the company. The Pullman Company received an engraved plaque, and A. E. Greco, editor of The Pullman News, received a certificate of award and a check for $100. The presentations were made recently at Toronto, Ont., at the annual convention of the International Council of Industrial Editors.

R. I. to Reward Acts of Courtesy And Service by its Employees

A $100 savings bond will awarded each month to the employee of the Chicago, Rock Island & Pacific who, in the opinion of a board of judges, is outstanding in the performance of his or her duties. In addition, the winning act of courtesy or service will place the employee in the running for a yearly award of a $500 bond. Runners-up will receive specially inscribed framed certificates of merit.

Nominations for awards—which may be competed for by all classes of employees except those in supervisory capacities—will be made by fellow-employees, officers, or the traveling and shipping public, by addressing a letter to the road's public relations department at 921 LaSalle Street station, Chicago. Nominations will be judged in key cities throughout the R. I. system by boards of judges which will be changed monthly. The board is to consist of one outstanding citizen of the community in which the judging takes place, a member of the railroad's General Chairman's Association, and an officer of the R. I.

Katy Cuts Texas Coach Fares For Six-Month Trial Period

The Missouri-Kansas-Texas, on June 8, reduced its one-way and round-trip passenger coach fares between Dallas, Tex., and Fort Worth on the north, and Houston, Tex., and San Antonio on the south, in a move to meet highway competition. The rates have been approved by the Railroad Commission of Texas

and will remain in effect for a six-month trial period, according to J. F. Hennessey, Jr., vice-president—traffic. It is understood that other southwestern roads have filed applications for reduced rates similar to that of the Katy.

The round-trip fare between Dallas and San Antonio, for example, has been reduced from $13.05 to $8.95 (federal tax not included) and the one-way fare from $7.25 to $4.95. Proportionate reductions have been placed in effect at intermediate points. Between Dallas or Fort Worth and Houston, the reduction is from $11 to $9 for round-trips and from $6.10 to $5 one-way. Proportional rates are also in effect between other intermediate points where the new rates are less than the regular 30-day and 90-day fares. The time limit will be five days on one-way tickets and 15 days on round-trips.

Mr. Hennessey said that the reduction on the Katy was decided upon after long study, during which it was learned that although the private automobile has been cutting into railroad passenger traffic, a dozen bus lines, with lower rates, have been doing steadily increasing business. "I am confident," said Mr. Hennessey, "that the superior travel facilities on the Katy will attract back to the railroad a great deal of the business that has been lost to other forms of competition wholly and solely because of the rate difference."

Parmelee Says Panama Canal Toll Is Too Low

"The existing Panama Canal toll rate of 90 cents per ton is unduly low, when measured by current cost levels and factors of relative use," Dr. J. H. Parmelee, vice-president of the Association of American Railroads and director of its Bureau of Railway Economics, said in a statement made June 14 before the commission on merchant marine and fisheries of the House of Representatives. The committee, which is engaged in a study of financial operation of the canal, has before it a proposal (House Resolution 44) advanced by American shipping interests, the effect of which would be to lower payments for use of the canal. This would be done by omitting interest on investment and half of certain other costs of operation as elements of cost on which toll rates are based.

Commercial users of the canal, Dr. Parmelee suggested, should pay at a rate no less than 50 per cent higher than the current rate in order to meet the canal costs properly attributable to their use. To the extent that commercial users are being charged less than their fair share of the cost, he told the committee, the shipping interests involved are being subsidized. Noting the very heavy commercial use made of the canal by foreign shipping, Dr. Parmelee stated that "more than half of such a subsidy inures to the benefit of foreign shipping and is at the expense of American taxpayers."

The witness pointed out that the cost of operating and maintaining the canal had increased 90 per cent in the past 10 years. On this basis, he said, "the very conservative upward revision of toll rates from 90 cents to one dollar approved by the President and implemented by him in his Proclamation No. 2775, seems certain to prove inadequate to meet current costs."

The railroads' interest in the Panama Canal and its operations, Dr. Parmelee said, is two-fold. These he listed as (1) that of "heavy taxpayers" who "contribute to the subsidies that other transportation agencies are enjoying at the hands of the federal government," and (2) that of "the country's largest and most widespread transportation agency which competes for traffic with ships using the canal in intercoastal trade."

"In both capacities," he stated, "the railroads have a right to expect the government to operate the canal on a sound business basis, in such manner as to eliminate unfair competition and preserve the objectives laid down by Congress in its declaration of national transportation policy."

Preceding Dr. Parmelee before the committee, Assistant General Solicitor Gregory Prince of the A.A.R. recognized the military value of the canal, but pointed out that its principal function was commercial. He quoted from the report of a special committee appointed by President Roosevelt in 1936 to study the canal toll situation, which found that "the cost of constructing and the expense of maintaining and administering the canal are obligations that have been assumed primarily to provide a commercial facility." "The capital and the current expenses thus incurred," the report added, "may properly be borne by the shipping that is aided. . . ."

Concluding, Mr. Prince recommended that the present policy of including interest on investment and other necessary costs in their entirety as a part of the cost of operation of the canal be continued. "By so doing," he said, "the government would avoid the unwise step of conferring a very substantial subsidy upon foreign shipping and would avoid action in derogation of the national transportation policy declared by Congress. . . ."

1948 Crossing Accidents

Accidents at railroad-highway grade crossings during 1948 resulted in the death of 1,612 persons and injuries to 4,255, according to the latest compilation by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. In 1947, 1,790 persons were killed and 4,251 injured.

Crossing accidents last year totaled 3,964, as compared with 4,015 in 1947, a decrease of 1.27 per cent, while fatalities declined 9.94 per cent and injuries increased 0.09 per cent.

Another tabulation shows that the 1948 crossing fatalities accounted for 45.13 per cent of the persons killed that year in all railroad accidents resulting from train operation. This compares with 45.39 per cent in 1947 and 44.42 per cent in 1946. Crossing accidents accounted for 16.56 per cent of 1948's non-fatal injuries, as compared with 14.59 per cent in 1947 and 14.52 in 1946.

According to the summary, 1,676 freight trains and 1,366 passenger trains were involved in the 3,592 rail-highway accidents involving motor vehicles in 1948. The number of grade-crossing accidents per million train-miles was higher in 1948 for freight and yard switching trains and lower for passenger trains, as compared with 1947, the frequency rate being 2.87 per million train-miles in 1948 (as compared with 2.65 in 1947) for freight trains, and 3.35 for passenger trains, as compared with 3.44 in 1947. Approximately 64 per cent of the accidents in which the motor vehicle was struck by the train occurred in the daylight, while about 71 per cent of those in which the motor vehicle ran into the side of the train occurred after dark.

As has been the case since 1945, December was the 1948 month in which the greatest number of crossing accidents occurred. Saturday, which has held first place since the compilation was first begun in 1935, remains the day of greatest accident frequency. The weather was reported "clear" when 68 per cent of the accidents occurred; and the speed of the motor vehicle was given as "standing" or moving at not more than 30 m.p.h. in 59.38 per cent of the accidents involving motor vehicles.

"An accurate measure of the influence of traffic volume upon the frequency of grade-crossing accidents is not available," the bureau observed. "The best obtainable measures are limited in that they include only rail and motor-vehicle data. These data are train-miles operated and motor-vehicle registrations. Train-miles were 3.78 per cent less in 1948 than in 1947, but motor-vehicle registrations increased 8.61 per cent in the same period. The number of rail-motor grade-crossing accidents decreased only 0.73 per cent, but deaths therefrom decreased 10.91 per cent. Only one less person was injured in 1948 than in 1947 in such accidents. The frequency of such accidents per million train-miles increased 3.18 per cent, but the number of accidents per million motor-vehicle registrations decreased 8.6 per cent."

Average Load Reached All-Time High in 1948

Average tons per car of carload freight reached an all-time high of 41.6 tons in 1948, according to an analysis prepared by the Car Service Division, Association of American Railroads, on the basis of commodity statistics issued by the Interstate Commerce Commission. The analysis was sent recently to A.A.R. member roads by C.S.D. Chairman Arthur H. Gass.

The 1948 figure compares with an average car load of 41 tons in 1947,

which was also the load attained in the peak war year of 1943. In 1929, the average load per car was 35.4 tons. By commodity groups, the average load in 1948 ranged from 14.5 tons for animals and products to 56.3 tons for products of mines. Last year's average loads were higher than those of 1947 in all groups, except products of agriculture and forwarder traffic.

Mr. Gass explained that the decrease in the average load for products of agriculture (from 34.7 tons in 1947 to 34.5 tons in 1948) was due "primarily to the decrease in the number of carloads handled of heavy loading commodities rather than to a decline in the efficiency of car utilization for these commodities as a whole." For example, the C.S.D. chairman continued, "the average load for wheat was nearly 7/10 of a ton greater than in 1947 and the average load of corn increased nearly a ton. However, since fewer carloads of these commodities were handled than in 1947, the total for products of agriculture as a whole fails to reflect the more efficient utilization of cars in this traffic."

Mr. Gass also called attention to gains in 1948 over 1947 of one-half ton and "slightly more than one ton" in the average loads of such "important" traffic as bituminous coal and iron ore, respectively. Meanwhile, he noted that the total tonnage originated in 1948 was second only to that of 1947 in the commission's records. And he thought it "probable" that the average load in 1949 will be less than last year's record high. The drop, Mr. Gass said, will be due to the cancellation of the Office of Defense Transportation's minimum-loading order, ODT-18A, and to the decline in total tonnage. "When total volume declines, tons per car tends also downward," the C.S.D. chairman added.

Holds Further Hearings On "Radio-Safety" Bill

A subcommittee of the Senate committee on interstate and foreign commerce continued hearings June 14 on S. 238, a bill which would amend section 25 of the Interstate Commerce Act to give the Interstate Commerce Commission authority to require railroads to install and maintain communication systems and to establish and observe operating rules, regulations, and practices "to promote safety of employees and travelers." The bill was introduced by the committee's chairman, Senator Johnson, Democrat of Colorado.

The subcommittee which held the hearings is headed by Senator Myers, Democrat of Pennsylvania, and the first witness at the June 14 session was Commissioner E. M. Webster of the Federal Communications Commission. Mr. Webster said the F.C.C. took no position in regard to S.238, but it does want changes in the text to insure what it regards as a proper coordination of I.C.C. and F.C.C. activities in the field of railroad radio. Mr. Webster called the committee's attention to the many problems which he said confront the railroads in their undertakings to use radio in their operations. Referring to the F.C.C.'s recent order taking away from the Railroad Radio Service 19 to 21 of the 60 frequencies originally allocated to it (see *Railway Age* of May 7, page 59), Mr. Webster said that the F.C.C. felt it could "safely" reduce the allocation made to the railroads. He called the present allocation of 41 frequencies in the Chicago area and 39 for the rest of the country a "fair" one. Here Senator Myers inquired if the 41 frequencies now assigned would meet the future needs of the railroads if the bill were enacted into law. Mr. Webster replied that they would take care of any requirements which I.C.C. might set up in the immediate future. He added, however, that, as progress is made and as the I.C.C. and the F.C.C. study the situation, it may be that 41 frequencies will not be sufficient.

In opposing the bill, James M. Souby, general solicitor, Association of American Railroads; J. J. Brinkworth, vice-president, New York Central; and Graham E. Getty, statistician, Bureau of Railway Economics, A.A.R., made presentations like those they made before the House subcommittee at its hearing of a similar bill, H.R.378, on May 17 and 18 (see *Railway Age* of May 28, page 46). However, Mr. Souby made reference to some figures Mr. Webster had used, i.e., the F.C.C. commissioner's statement that of the 131 Class I roads, 58 are now using radio, 13 of these at Chicago. Mr. Souby said the commissioner evidently took his figures from F.C.C. records, whereas later reports, as of May 15, showed 66 roads now using radio, 18 of these at Chicago.

Senator Myers inserted into the record a letter from W. D. Johnson, vice-president and national legislative representative of the Order of Railway Conductors of America. This letter listed 170 recommendations with respect to operating rules and practices appearing in the 669 reports on accident investigations made by the I.C.C. from January 1, 1942, to December 31, 1948. The hearing was then adjourned until June 23.

Car Supply Up, But Winter Wheat Storage Space Declines

As the winter wheat crop gets under way in the Southwest, the supply of box cars is greatly improved, but storage space for the crop has decreased considerably under previous years, Ralph E. Clark, a manager of the Car Service Division of the Association of American Railroads, said in Wichita, Kan., on June 15. Speaking at a meeting of the Trans-Missouri-Kansas Shippers Board, Mr. Clark said there are 5,800 more box cars on railroads serving the Southwest than there were a year ago and 19,000 more cars available than two years ago.

In addition to improving the box car supply, Mr. Clark added, the railroads in the wheat belt since last year have installed many new and more powerful locomotives, modernized yard facilities in their terminals and at markets and made many other improvements in their equipment, roadways and structures, all of which have resulted in increased operating efficiency and economy. Mr. Clark pointed out that several public elevators and mills have been increased in capacity or have installed automatic car loaders so that a car of grain can be emptied in about one-third of the time needed by the power shovel method. "These enlarged and modernized facilities placed in service by the grain industry and the railroads in the past year will expedite the movement and unloading of cars at terminals and thereby shorten the turnaround time between loads, so that in the final analysis it will be possible to handle substantially more grain with fewer cars this season than in former years," he said.

The real problem in handling this season's grain crops, including the large winter wheat crop, is the storage space available in public elevators at terminal and sub-terminal markets, Mr. Clark explained. Public elevator capacity has increased by 14,250,000 bushels from two years ago when the crop was comparable to this year's production, he said. But because of a large carry-over of old grain in storage last year, elevator capacity is actually about 72,000,000 bushels less than in 1947. For example, he continued, all public elevators at terminal markets in the Southwest had storage space, on June 4, for only about 47,500 cars of grain, while two years ago they had space for 91,900 carloads. Mr. Clark emphasized that although it is necessary to control by embargo the movement of grain intended for storage in order to prevent the congestion of markets, the railroads will move every bushel of grain for which storage space is available. In addition, he said, the box car supply is presently large enough to handle even more business than is now in prospect.

Inequities of Transport Policies Up Costs to Public—Faricy

"The difficulty of the present transportation situation—and it is a very great difficulty, indeed—is that our laws, regulations and public policies as to transportation are so unequal in their application that much freight is not hauled by that agency which can do the job at the lowest true costs," William T. Faricy, president of the Association of American Railroads, declared in an address before the Executives' Club of Chicago, on June 10. The result, added Mr. Faricy, is an increase in total transportation costs to the public, even though in some instances, and on some freight, the rates charged may be lower.

Continuing, the A.A.R. president said: "This seeming paradox is due to both the nature of railroad operation and the contradictory nature of the laws and policies under which transportation is

carried on. Railroading is a volume business. It costs not a great deal more to run many trains than it does few, up to the limit of the capacity of the track. It costs very little more to run long trains than short trains. It costs hardly any more to move a full car than it does an empty. So, added freight—freight which would not otherwise be hauled—is the cheapest for the railroad to move.

"Conversely, the effect of not hauling freight is doubly serious, for operating costs cannot be reduced in proportion to the reduction in tons per car, or cars per train, or trains per mile of road. Under such circumstances, railroads earnestly seek every means of increasing their traffic. As true common carriers, however, subject to the strict regulation of their rates and charges, they are not free to seek added tonnage as such without reference to what they charge on the freight they already have. What they do for one, they must do for all similarly situated."

Referring to the subject of his address, "Chicago—Product of Transportation," Mr. Faricy said: "Chicago is located at a strategic crossroads in the water transportation system of the United States, but if Chicago had to depend entirely on water transportation, this city would find itself hungry and cold during a third of the year. . . . Great fleets of trucks go into and out of Chicago, but all these trucks put together could not begin to serve the entire transportation needs of the city. . . . All the planes that land . . . and take off serve only a minor portion of Chicago's intercity needs.

"And what is true of Chicago is true of the nation, because when one takes all the other forms of transportation and puts them together—the trucks, the waterways, the air lines and the pipelines—they handle a combined freight traffic which is only about one-half what the railroads haul. Putting it another way, the railroads today handle about two-thirds of all the intercity freight transportation in America.

"Why is that? It is because no other form of transportation, or all of them put together, can perform the mass transportation that reaches all parts of the country in all seasons of the year, and does it at rates which, even with the postwar inflated costs, still produce only about 1 1/3 cents per ton per mile. There is nothing in existence and nothing in sight that can take the place of the flanged wheel on the steel rail."

Senate Committee Hears A.A.R. Officers on Air Subsidies

The advisability of paying further subsidies to domestic air transportation was questioned by Dr. Julius H. Parmelee, vice-president of the Association of American Railroads and director of its Bureau of Railway Economics, in a statement he made last week before the Senate interstate and foreign commerce subcommittee which is investigating the financial condition of the air lines. Another statement was made at the same June 10 hearing by the A.A.R.'s vice-president and general counsel, J. Carter Fort, who said that the railroads are against subsidies to any form of transportation and think that "there should be no exception to this general rule except under the most compelling circumstances."

In questioning the payment of further subsidies to the air lines, Dr. Parmelee said that the "infant-industry" argument is no longer valid because "the facts show that air transport has now come of age." It "has grown rapidly into a nationwide industry, with total assets close to half a billion dollars," the B.R.E. director added.

He also suggested that the committee's studies should develop the facts as to all subsidies granted to air transportation, and thus cover not only air-mail payments but also other aids such as government expenditures for the following: Construction and maintenance of airports; traffic control and regulation; special weather service for aviation purposes; safety regulations and practices; airman and aircraft licensing and inspection; maintenance of government promotional authorities; technical research and development under the supervision of the Civil Aeronautics Authority, and similar activities by the National Advisory Committee for Aeronautics.

Huge Sums Involved

"The sums of money involved in these activities," Dr. Parmelee said, "are of such magnitude that they have appreciable effects upon the national budget, upon state and municipal budgets, upon the air transport industry itself, and upon other carriers affected by the activities of air transportation."

As to payments for carrying the mail, Dr. Parmelee said that, in 1948, the railroads carried 94.7 per cent of the non-local letter mail and were paid $26 million for that service. The domestic air lines carried 5.3 per cent of the volume and were paid $41 million. "Stated another way," the B.R.E. director continued, "the railroads received 1/5 of a cent per letter and the air lines more than 5 cents. The Post Office Department had revenues exceeding expenses of $87 million on the first-class, non-local mail carried by railroads, but had expenses exceeding revenues of $27 million on the domestic air mail."

At another place in his presentation, Dr. Parmelee suggested that the needs of commerce for air transportation cannot be considered apart from the needs of commerce for the services of surface carriers. "Commerce," he asserted, "needs surface transportation in much greater volume than it needs air transportation, and it would not appear to be the part of wisdom to promote air transportation to the detriment of surface transportation."

For the past several years, Dr. Parmelee said, air cargo has been carried at a loss. He added that an industry which handles traffic at rates that do not meet operating costs "is offering an uneconomic form of competition with other industries in the same field," and in this case the "uneconomic competition" is "fostered by the present method of paying air-mail subsidies." As to the present level of air-mail payments, the B.R.E. director pointed out that they were approximately doubled between 1946 and 1948, although the volume increased only 14 per cent. The 1948 payments amounted to $1.26 per ton-mile, as compared with 64 cents in 1946.

Suggests "Direct Approach"

Discussing the Congressional objective of promoting the development of air transportation in the interest of national defense, Dr. Parmelee suggested the "direct approach." He asked if the national-defense objective would not be more efficiently and advantageously realized "by appropriating money directly to the armed forces, instead of the present system of making subsidy payments to the air lines without any specific plan or direction as to its use to aid the national defense." In leading up to his raising of this question, the B.R.E. director had calculated that the domestic certificated air lines, in the event of a war emergency, "could supply only about 2.2 per cent of the total needed air personnel of the armed forces, even if the latter took everyone on the air line payroll from president to file clerks and messengers."

In expressing the railroads' opposition to transport subsidies, A.A.R. Vice-President Fort mentioned the "drain on the U. S. Treasury," saying that was "enough to condemn" a subsidy policy, "particularly at a time when money is needed as sorely as it is now, and taxes are as high as they are now." But a "much more important" reason for the railroads' position, Mr. Fort said, was their belief that "a sound transportation system cannot be developed when some forms of transportation are subsidized and others are not."

Describes "Sound" Transport System

"A sound system of transportation," the A.A.R. vice-president continued, "is one in which each of the several modes of transportation perform those services which it is best fitted to perform. If one form of transportation is subsidized its true costs are obscured and are not reflected in its prices or rates. Accordingly, the subsidized form draws to itself business which can be performed more cheaply by another form of transportation. Thus the subsidized form is developed beyond its true worth in an economic sense and there is a resulting distortion in the system of transportation.

"In no way can we determine which form of transportation is best fitted to perform the various transportation services except by having each form bear its own costs and having the full costs of each form reflected in the rates and charges which it makes to the public.

Under such a situation, the traffic will seek that form of transportation best suited for its purpose and the national transportation system will have a healthy and natural development."

Freight Car Loadings

Loadings of revenue freight in the week ended June 11 totaled 808,156 cars, the Association of American Railroads announced on June 16. This was an increase of 109,332 cars, or 15.6 per cent, above the preceding week, a decline of 98,507 cars, or 10.9 per cent, below the corresponding week last year, and a drop of 87,136 cars, or 9.7 per cent, under the equivalent 1947 week.

Loadings of revenue freight for the week ended June 4, which included the Memorial Day holiday, totaled 698,824 cars, and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, June 4,	1949	1948	1947
Districts			
Eastern	118,493	140,037	160,219
Allegheny	143,152	171,787	195,627
Pocahontas	61,696	75,657	73,382
Southern	106,519	134,523	137,525
Northwestern	116,080	121,365	136,195
Central Western	100,340	115,647	131,233
Southwestern	52,744	64,190	66,566
Total Western Districts	269,164	301,202	333,994
Total All Roads	698,824	821,206	900,747
Commodities:			
Grain and grain products	40,897	40,423	45,064
Livestock	8,125	10,927	12,683
Coal	142,708	196,443	195,961
Coke	12,332	14,501	14,457
Forest products	34,946	41,644	46,380
Ore	78,174	81,590	80,490
Merchandise l.c.l.	80,099	93,447	117,242
Miscellaneous	301,543	342,231	388,470
June 4	698,824	821,206	900,747
May 28	784,824	904,757	830,205
May 21	773,911	879,177	890,605
May 14	771,756	846,945	888,208
May 7	768,337	880,287	884,242
Cumulative total 22 weeks	15,831,350	17,368,570	18,339,440

In Canada.—Carloadings for the week ended June 4 totaled 73,967 cars, compared with 66,157 cars for the previous week, and 77,695 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
June 4, 1949	73,967	29,699
June 5, 1948	77,695	31,484
Cumulative totals for Canada:		
June 4, 1949	1,591,639	697,954
June 5, 1948	1,628,284	783,641

April Truck Traffic

Motor carriers reporting to American Trucking Associations transported in April a total of 3,159,297 tons of freight, a decrease of 5.5 per cent below the previous month's total of 3,344,052, and 3 per cent below the 3,255,798 tons hauled in April, 1948. The figures, according to A.T.A., are based on comparable reports from 333 carriers in 41 states.

Additional General News appears on pages 84 and 85.

SUPPLY TRADE

International Steel Organizes Railway Division

The International Steel Company, Evansville, Ind., one of the largest fabricators of steel, by tonnage, in the country, has announced the formation of a railway division to manufacture and market railway products, including freight car sides, underframes, box car doors, brine tanks, stainless steel floors, racks, and bracing panels for refrigerator cars. In addition to these and other rolling stock parts now being developed, the company will furnish sectional buildings for use as oil storage depots, and shop and service buildings, which may be dismantled and relocated with 100 per cent salvage of original material. All fabricating will be done in the company's 11-acre plant at Evansville, which has 500,000 sq. ft. of floor space.

In charge of the railway division will be Walter G. Koch, senior vice-president of International, and Wesley D. Hamilton, vice-president, reporting to President Henry Bohnsach. The railway division recently retained as consultant K. F. Nystrom, retired chief mechanical officer of the Chicago, Milwaukee, St. Paul & Pacific, and one of the first products offered for railway use is the Nystrom car side door. This door is designed with interlocking top and bottom strips intended to prevent loss in transit, and can be equipped, when desired, with a hinged auxiliary top door opening for grain loading and inspection, thus eliminating the need for conventional grain doors.

R. C. Friedly, assistant general sales manager of the Nelson stud welding division of the **Morton Gregory Corporation,** Lorain, Ohio, has been appointed central states regional manager, with headquarters at Chicago.

Harry H. Lumley, Chicago district manager of operations at the **American Steel & Wire Co.** (subsidiary of United States Steel), has been appointed assistant to vice-president of operations, with headquarters remaining at Chicago. He has been succeeded by **John R. Gaut,** assistant manager of operations.

Richard N. Chapin has been appointed general purchasing agent of the **Air Reduction Sales Company,** to succeed **Walter R. Clark,** who resigned to become head of the purchasing department of **U. S. Industrial Chemicals, Inc.**

The Hyatt bearings division of **General Motors Corporation** has appointed **George A. Burgermaster** and **C. Russell Todd** as assistant purchasing agents to succeed **William E. Jones,** retired, and **Leo V. Farrell,** recently promoted to general purchasing agent.

The appointments of **F. M. Urban** as sales manager of engineered rubber products and **H. Leon Moran** as factory manager, Fort Wayne, Ind., plant, **United States Rubber Company,** have been announced by Ernest G. Brown, vice-president and general manager of the mechanical goods, general products, Lastex yarn and rubber thread divisions.

F. K. Krell has been promoted to manager of sales, welding fittings, of the **Globe Steel Tubes Company,** and **John F. Scott** has been promoted to manager of sales, stainless and alloy tubing. **John Koss,** formerly in charge of export sales, has been appointed sales representative, Chicago district, and **J. J. Lukens,** formerly head of the pricing division, has been appointed sales representative, New York district.

F. K. Krell

Mr. Krell joined the company's general sales staff in 1942 and was appointed advertising manager two years later. In 1946 he was made sales service supervisor and in 1947 he was appointed Chicago district sales representative, which position he held until his recent promotion. Mr. Scott joined Globe Steel Tubes in 1940 as a metallurgist and was later transferred to the general sales office as a chemical and metallurgical s les representative. Early in 1947 he was ap-

John F. Scott

pointed sales representative for the New York district, retaining this position until his recent promotion.

William Van C. Brandt has been appointed managing director of the **Electric Industrial Truck Association,** effective July 1. Mr. Brandt has resigned as manager of railway and motive power sales for the Electric Storage Battery Company to accept the new post. He succeeds **C. F. Kells,** who has joined a publishing firm. Succeeding Mr. Brandt as vice-president of the association is **M. W. Heinritz,** vice-president of the Gould Storage Battery Corporation.

The **O. K. Company,** 80 Jackson boulevard, Chicago, has been appointed representative for the **Morton Manufacturing Company,** 5195 West Lake Street, Chicago. Associated with O. K. are **Tom King,** president; **Karl V. Graff,** vice-president, and **Mal Cone,** salesman.

John A. Carter has been elected president of **Oakite Products, Inc.,** to succeed **D. C. Ball,** who was elected chairman of the board. **David S. Ball,** formerly vice-president, was elected to the newly created position of first vice-president. The new president has been associated with the company for 34 years, serving in re-

John A. Carter

cent years as assistant to the president and, since December, 1947, as general manager. "We plan to continue our expansion program," Mr. Carter said, "so that we may be able to provide even greater service in the constantly broadening field of production and maintenance cleaning."

Railroad Supply & Equipment, Inc., a newly formed company, with offices at 148 Adams avenue, Scranton, Pa., has announced that it is the sole distributor to the railroads of the United States of the Amesteam generator, a product of the **Ames Iron Works,** Oswego, N. Y. The new company is qualified to assist in the engineering and design of boiler rooms for the steam generator, and to supervise installation and maintenance of the unit. Officers of the company are **Arthur R. Frampton** and **Edmund J. Heberger.**

The **Athey Products Corporation,** Chicago, has appointed **Reid Evans** as its district representative for the north central area, with headquarters at Urbana, Ill., and **Marvin B. Stanley** as sales and service representative for the southwest territory, with headquarters at San Leandro, Cal. Mr. Evans was formerly branch manager of the Ohio Machinery Company at Toledo, Ohio, and Mr. Stanley was formerly service representative for Athey on the Pacific Coast.

Three staff appointments in the locomotive and car equipment divisions of the **General Electric Company** have been announced. **H. O. Trumpfheller,** formerly assistant to the manager of manufacturing, has been appointed manager of manufacturing; **David Blair,** formerly production manager, has become assistant to the manager in charge of procedures; and **C. E. Shank,** formerly assistant production manager, has been named production manager. Also, **Harold E. Strang,** engineering manager of the affiliated manufacturing companies department, has been appointed manager of the G.E. apparatus department's meter and instrument divisions at Lynn, Mass., to succeed **Nicholas M. DuChemin,** who has been named an assistant general manager of the apparatus department, as has **John W. Belanger,** manager of the turbine divisions at Schenectady, N. Y. Messrs. Belanger and DuChemin will assist in directing operations of the department's product divisions, works service divisions and various works. The marketing activities of the apparatus department will continue to function under the direction of **Chester H. Long,** G. E. vice-president in charge of apparatus department sales.

OBITUARY

James S. Hearons, sales manager, railway division, of the Clark Equipment Company, with headquarters at Chicago, died on June 12, after a heart attack.

John Pressley Coleman, retired consulting engineer of the Union Switch & Signal Co., died recently in Pittsburgh, Pa. He was 83 years old.

EQUIPMENT AND SUPPLIES

SPECIAL

The **Union Pacific** has ordered two large rotary snow plows from the Lima-Hamilton Corporation.

ABANDONMENTS

Division 4 of the Interstate Commerce Commission has **authorized:**

Western Pacific.—To abandon a portion of its Carbona branch, approximately 2 mi., in San Joaquin county, Cal.

CONSTRUCTION

Atchison, Topeka & Santa Fe.—This road has awarded contracts to List & Clark Construction Co., Kansas City, Mo., for grading and culvert work in connection with relocation of two segments of line between Elmer, Mo., and Hart, and to Fitz Simons and the Connell Dredge & Dock Co., Chicago, for repairs to approximately 700 lineal ft. of dock at Auction House slip, Chicago Produce Terminal.

Lake Terminal.—The Rust Engineering Company, Pittsburgh, Pa., recently completed for this road a Diesel locomotive maintenance shop, designed primarily for servicing and maintaining switching locomotives, at Lorain, Ohio. The shop covers an area 82 ft. wide and 154 ft. long and is equipped to handle all phases of repair, including the replacement of entire power units.

Louisville & Nashville.—This road has authorized the following projects to be completed by company forces, at the indicated estimated costs: Replace 108 ft. of timber trestle with one 40-ft. and one 75-ft. deck girder spans on concrete pier abutments, at bridge No. 5, Woodward creek, Eastern Kentucky division ($48,000); replace three 30-ft. deck girder spans with one 60-ft. deck girder span and 30 ft. of timber trestle, at bridge No. 27, Yellow creek, Cumberland Valley division ($35,600); replace 104-ft. deck truss span, two masonry piers and 180 ft. of timber trestle, with three 75-ft. and one 40-ft. deck girder spans on three concrete piers and two concrete pier abutments, at bridge No. 51, Shools creek, Birmingham division ($112,500); and rearrange tracks at north end of South Louisville (Ky.) yards ($43,000). The L. & N. has awarded a contract to the Codell Construction Company, Winchester, Ky., for grading in connection with the construction of yard and mechanical facilities for handling freight traffic at Dent, Ky. (see *Railway Age* of December 18, 1948, page 72). A grading and drainage contract has been awarded to the Badgett Mine Stripping Corporation, Madisonville, Ky., in connection with spur track construction to serve the Miners Coal Company at Fies, Ky. (See *Railway Age* of March 5, 1949, page 68).

Texas & New Orleans.—Upon the motion of this road, the Interstate Com-

merce Commission has dismissed its application for authority to construct an 0.8-mile industrial spur in the Houston, Tex., switching district.

ORGANIZATIONS

The **Traffic Club of St. Louis, Mo.**, has elected the following new officers: President, Paul C. Creal, traffic manager, Chevrolet Motors Company; first vice-president, James J. Gleason, district freight agent, Louisville & Nashville; second vice-president, Vernon R. Hudder, traffic manager, Lincoln Engineering Company; third vice-president, James D. Logan, general freight agent, Acme Fast Freight Lines; fourth vice-president, Wil J. Edmonds, general traffic manager, Granite City Steel Company; fifth vice-president, John J. Burke, president, Middlewest Freightways, Inc.; and secretary-treasurer, A. J. Koke, Jr., traffic manager, A. Leschen & Sons Rope Co.

The **Great Lakes Regional Advisory Board** will hold its next quarterly meeting in the Hotel Commodore Perry, Toledo, Ohio, on June 28 and 29. Arthur H. Gass, chairman, Car Service Division, Association of American Railroads, and H. E. Stringer, assistant to the chairman, will be the chief speakers at the joint meeting of the board's executive and contact committees on June 29.

In connection with its National Cooperative Project, the **Transportation Association of America** has scheduled meetings at the St. Francis Hotel, San Francisco, Cal., on July 21, for organization of its Northern California-Nevada regional forum, and at the Biltmore Hotel, Los Angeles, Cal., on July 27, for organization of its Southern California-Arizona regional forum. Clarence F. Lea, former chairman of the committee on interstate and foreign commerce of the House of Representatives, and now director of governmental relations for the association, will speak at both meetings, as will Donald D. Conn, executive vice-president of the association.

The next meeting of the New York division of **Railroad Enthusiasts** will begin at 7:45 p.m. on June 22 in room 5928, Grand Central Terminal, New York. Kenneth Cartwright, chief mechanical engineer of the New York, New Haven & Hartford, will discuss "What Makes a Passenger Train Ride Smoothly?" The General Electric Company's motion picture, "Railroadin' on the Maybrook," will be shown.

The 380th meeting of the **Pacific Railway Club** was held on June 9 at the Alexandria Hotel, Los Angeles, Cal. H. L. Hamilton, vice-president, General Motors Corporation, spoke on "The Development of the Diesel Locomotive" and W. P. Hartman, mechanical superintendent, Atchison, Topeka & Santa Fe, gave a talk on "Introducing Steam Personnel to the Diesel Locomotive."

The **Pacific Northwest Advisory Board** will hold its seventy-fourth regular meeting on June 24, at the Winthrop Hotel, Tacoma, Wash.

FINANCIAL

Alleghany Corporation.—*Reduces C. & O. Holdings.*—The Alleghany Corporation has announced that its recent offer to exchange some of its holdings of Chesapeake & Ohio common stock for a portion of its own outstanding prior preferred and series A preferred shares reduced the holdings of C. & O. common, which before the exchange had totaled 601,000 shares, by about 70,000 shares. The rate of exchange was 2¼ C. & O. common shares for one Alleghany prior preferred share and 1½ C. & O. common shares for one Alleghany series A preferred share (see *Railway Age* of May 7, page 66).

Atlantic & Danville.—*Trackage Rights.*—This road has filed with the Interstate Commerce Commission two applications for approval of trackage-rights and terminal-use agreements contemplated by its plan to revert to independent operation on July 1, when the present lease of its properties to the Southern expires (see *Railway Age* of April 9, page 72). One of the applications seeks approval of a contract covering joint use of the Pinners Point, Va., terminals and facilities of the Atlantic Coast Line and of the latter's tracks extending from such terminals to a connection with the A. & D. at Boone, Va., 7.8 mi. Under this agreement, the A. & D. would pay the A.C.L. $4 for each car (including locomotives and cabooses) using the facilities, the minimum annual total to be $75,000. The other application seeks approval of a trackage-rights agreement covering joint use of the Richmond & Mecklenburg's 1.8-mi. line between Jeffress, Va., and Clarksville Junction. Under this agreement, the A. & D. would pay, in monthly installments, an annual rental equal to one-half of 4 per cent on the valuation of the R. & M. lines involved, plus a proportionate share (based on car and engine miles) of the maintenance and operating expenses, taxes, and insurance. The commission has assigned the applications for hearing before Examiner C. A. Bernhard at Washington, D. C., on June 23.

Central of New Jersey.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has fixed maximum limits of final allowances for services rendered and expenses incurred in connection with this road's reorganization proceeding, by parties in interest and their counsel, during the period, generally, from October 30, 1939, through July 14, 1948. The division allowed a total of $445,959.20 on claims totaling $639,068.76. The largest cut was applied to the claims of the so-called Watters bondholders' committee and its counsel, that group having been allowed $72,074.76 on claims totaling $152,701.96. The largest allowance was made to the so-called institutional group of bondholders, its counsel, and experts who got $228,705.37 on claims totaling $256,016.37. The former figure included $150,000 allowed to the group's counsel, Oliver & Donnally, on a claim of $175,000, and an allowance of $45,574.52, the amount claimed, to William Wyer & Company, "experts" retained by the group. The debtor corporation, its counsel, and consultants got $75,134.75 on claims totaling $90,134.75. The former figure included $52,879.30, the amount claimed, which was allowed to Coverdale & Colpitts, consulting engineers. The so-called Brooks bondholders' committee and its counsel got $28,338.95 on claims totaling $43,936.45; but Javits & Javits, counsel for another bondholders' committee which was headed by Emanuel M. Cohan was allowed nothing on a claim of $10,034.84. The division found that most of this firm's services were not related to the proceeding under Section 77 of the Bankruptcy Act, but were rendered in connection with the C.N.J.'s undertaking to effect a voluntary modification of its securities and thus avoid going through with the bankruptcy proceeding. The voluntary-revamp proposal is the subject matter of a pending proceeding under section 20b of the Interstate Commerce Act (the so-called Mahaffie Act), and the division said that section "contains no provision for payment of fees and expenses of any of the parties" in a proceeding under it.

Springfield Terminal.—*Purchase of Lessor's Property.*—Division 4 of the Interstate Commerce Commission has authorized this road to purchase the property and franchises of its lessor, the Springfield Electric. The latter's line, 1.5 mi. in length, extends from the eastern end of a Connecticut river bridge to a connection with the Boston & Maine in Charlestown, N. H., thus forming part of the S.T.'s 6.5-mi. line between that point and Springfield, Vt. The S.T. owns all of the S.E.'s capital stock, and the purchase agreement provides that the former will receive the latter's properties and franchises in return for surrender of the stock and assumption of all S.E. liabilities and obligations.

New Securities

Division 4 of the Interstate Commerce Commission has **authorized:**

Northern Pacific.—To assume liability for $6,450,000 of equipment trust certificates to finance in part the acquisition

of 1,200 freight cars and 4 4,500-hp. Diesel-electric passenger locomotives at a total estimated cost of $8,176,000 (see *Railway Age* of May 21, page 196). The certificates will be dated June 15 and will mature in 15 annual installments of $430,000 each, beginning June 15, 1950. The commission's report approved a selling price of 99.1299 with a 2⅜ per cent interest rate—the bid of Halsey, Stuart & Co., Inc., and associates, which will make the average annual interest cost approximately 2.52 per cent. The certificates were reoffered to the public at prices yielding from 1.4 to 2.675 per cent according to maturity.

Average Prices Stocks & Bonds

	June 14	Last week	Last year
Average price of 20 representative railway stocks	35.47	36.54	54.61
Average price of 20 representative railway bonds	83.49	84.28	90.35

Dividends Declared

Canada Southern.—$1.50 (payable in Canadian funds), semiannual, payable August 1 to holders of record June 22.

Elmira & Williamsport.—7% preferred, $1.65, semiannual, payable July 1 to holders of record June 20.

Mahoning Coal.—common, $12.50; 5% preferred, $1.25, semiannual, both payable July 1 to holders of record June 20.

Nashville & Decatur.—7½% guaranteed, 93¾¢, semiannual, payable July 1 to holders of record June 20.

New York & Harlem.—10% preferred, $2.50, semiannual, payable July 1 to holders of record June 10.

Norwich & Worcester.—8% preferred, $2, quarterly, payable July 1 to holders of record June 15.

Piedmont & Northern.—75¢, quarterly, payable July 20 to holders of record July 5.

Pittsfield & North Adams.—$2.50, semiannual, payable July 1 to holders of record June 16.

Providence & Worcester.—$2.50, payable July 1 to holders of record June 13.

Savannah & Atlanta.—5% preferred, $1.25, quarterly, payable July 1 to holders of record June 8.

Seaboard Air Line.—common voting trust certificates, 50¢ (irregular), payable June 30 to holders of record June 17; 25¢, payable September 30 to holders of record September 9; 25¢, payable December 31 to holders of record December 9.

RAILWAY OFFICERS

EXECUTIVE

Mrs. A. E. Stevenson, assistant to vice-president—public relations of the Chesapeake & Ohio at Cleveland, Ohio, has been transferred to New York. **Howard Skidmore,** executive assistant to vice-president—public relations, has been transferred from New York to Cleveland.

Harold R. German, vice-president—finance and accounting, of the Lehigh Valley, with headquarters at New York and Bethlehem, Pa., has retired, in accordance with the company's pension rules. Mr. German was born at New Hartford, N. Y., and attended the Utica, N. Y., School of Commerce; Coleman Business School, Newark, N. J.; and the New York University School of Commerce, Finance & Accounting. He entered railroad service in 1907 as a stenographer with the Delaware, Lackawanna & Western, and served successively as secretary to the vice-president and chief clerk to vice-president. In 1917 Mr. German went with the Lehigh Valley as chief clerk to the president, becoming assistant secretary and chief clerk to president in 1918

Harold R. German

and assistant to president in 1929. He was appointed secretary and treasurer of the L.V. in 1935, and 10 years later he became vice-president—finance and accounting.

Harold J. Hoglund, whose promotion to assistant vice-president of the Chicago, Burlington & Quincy at Chicago, was reported in the *Railway Age* of June 11, was born on July 25, 1889, at Burlington, Iowa, and received his education at business college and correspondence schools. He entered railroad service with the Burlington in 1904, serving in various clerical positions in his home town and at Lincoln, Neb., Wymore and Omaha until 1917. He later held the positions of trainmaster and superintendent at Wymore, Neb., Lincoln, Ottumwa, Iowa and Alliance, Neb., becoming assistant to general manager at Omaha in 1928. After serving in the latter capacity at Chicago also, he was appointed staff officer to the vice-president, operating department, at that point, and was advanced to assistant to executive vice-president in charge of labor relations there in 1935. Mr. Hoglund became a carrier member, First Division, National Railroad Adjustment Board, in 1946 and continued with that agency until his recent promotion to assistant vice-president of the Burlington.

Morris Cohon has been elected president of the Hudson & Manhattan, succeeding **Henry E. Peelle,** who has been elected vice-chairman of the board. **John S. Kroese** was elected first vice-president, succeeding **Charles Passannante; Walter L. Drill** was elected executive vice-president and secretary, and **James J. Crisona** was elected special counsel. Mr. Peelle succeeds Mr. Kroese as chairman of the executive committee, with **John Campbell** as vice-chairman, and **Jack Marqusee** was named chairman of the finance committee. The resignation of **Paul deGategno** as a board member and as second vice-president of the company was accepted at a meeting of the board of directors on June 14. Mr. Drill succeeds Mr. deGategno as a director.

Charles J. Sayles, executive assistant to the vice-president—traffic of the Wabash, at St. Louis, Mo., will retire on June 30, after 50 years of railroad service. A photograph and biographical sketch of Mr. Sayles appeared in the *Railway Age* of March 5, in connection with his appointment to his present post.

Karl Fischer, vice-president, executive department, of the Chicago, Burlington & Quincy, at Chicago, has retired after 40 years of service. Mr. Fischer was born at Quincy, Ill., on June 18, 1883, and entered railroad service with the Burlington in June, 1909, as a timekeeper. He served in various minor capacities until 1918, when he was appointed assistant trainmaster at Billings, Mont.; in June, 1919, he became assistant trainmaster at Casper, Wyo. The following October he was promoted to trainmaster at Lincoln, Neb., and two years later was appointed transportation inspector on the staff of the superintendent of transportation at Chicago, being transferred to Omaha, Neb., in 1924, as inspector of transportation on the general manager's staff. From

Karl Fischer

1925 to 1929 he served as assistant superintendent at Daytons Bluff, Minn., and subsequently became superintendent at Creston, Iowa, returning to Omaha in 1931 as assistant superintendent. After serving almost a year as superintendent of the relief and employment department, and chairman of the pension board at Chicago, he was appointed land and tax commissioner in May, 1935. In June, 1940, Mr. Fischer was granted a leave of absence for special government service at Washington, D. C., and in January, 1942, returned to Chicago as assistant to the president. He was elected vice-president, executive department, in May, 1947, which post he held at the time of his retirement.

FINANCIAL, LEGAL & ACCOUNTING

David O. Mathews, whose appointment as general counsel of the Chicago & Eastern Illinois, at Chicago, was reported in *Railway Age* of May 28, was born in Nebraska, attended schools in that state, and received his law degree from the University of Nebraska. From

David O. Mathews

1925 to 1941 he practiced law at Omaha, Neb., and he spent one year as an attorney with the Interstate Commerce Commission. Mr. Mathews joined the Office of Defense Transportation in 1942 and became special assistant to the United States attorney general at Washington, D. C., in 1944, which post he held until his recent appointment.

R. S. Stephenson, whose election as comptroller of the Chicago, Milwaukee, St. Paul & Pacific, at Chicago, was reported in the *Railway Age* of June 4,

R. S. Stephenson

was born at Oelwein, Iowa, on December 22, 1894, and entered railroad service in July, 1912, as a timekeeper on the Oelwein Terminal division of the Chicago Great Western. He held various clerical positions until July, 1915, when he was appointed chief accountant at the Oelwein shops. During World War I, he served in the United States Army, being honorably discharged in May, 1919, as first sergeant, 13th Engineers (Railway). Mr. Stephenson subsequently returned to the Great Western as traveling accountant, becoming statistician in the general accounting office in 1923. While holding the latter post he studied accounting and related subjects at Northwestern University, and in 1929 was transferred to the president's office as chief statistician. He joined the Milwaukee as special accountant, finance and accounting department, in 1935, and was later advanced to statistician, assisting in reorganization matters and conducting special cost and other studies. Mr. Stephenson rejoined the Great Western as comptroller at Chicago in 1942, and became assistant comptroller of the Milwaukee in February, 1945, the position he held until his recent election as comptroller.

William Kruckstein, whose appointment as general auditor of the Chicago, Milwaukee, St. Paul & Pacific at Chicago, was reported in the *Railway Age* of June 4, was born at Chicago on August 19, 1885, and entered railroad service in May, 1903, with the Milwaukee. He subsequently held a number of different

William Kruckstein

positions until August, 1920, when he was appointed ticket auditor at Chicago. In July, 1941, he was advanced to auditor of passenger and station accounts at that point, and, in October, 1944, became assistant comptroller. Mr. Kruckstein held the latter position until his new appointment.

OPERATING

P. R. Cordic, road foreman of engines of the Baltimore & Ohio at Connellsville, Pa., has been appointed supervisor locomotive operation, with headquarters at Pittsburgh, Pa., succeeding **J. A. Garlitz,** deceased.

R. A. Cathey, superintendent of the Chattanooga Traction Company (Southern subsidiary) at Chattanooga, Tenn., has been appointed superintendent of the High Point, Randleman, Asheboro and Southern and the Yadkin (also Southern subsidiaries), with headquarters at Salisbury, N. C., succeeding **S. M. Percival,** who has resigned to become chief engineer and superintendent of the Atlantic & Danville.

C. W. Veale, whose appointment as superintendent of the Waycross district of the Atlantic Coast Line at Waycross, Ga., was reported in *Railway Age* of May 28, was born at Union Star, Mo., where he was graduated from the local schools. Mr. Veale entered railroad service with the Atlantic Coast Line as a

C. W. Veale

telegrapher at Waycross on November 22, 1925, and was appointed train dispatcher on May 10, 1926; night chief dispatcher on January 16, 1938; trainmaster on July 31, 1942; acting superintendent of the Ocala district on April 1, 1948; and acting superintendent of the Waycross district on June 16, 1948.

TRAFFIC

Frederick B. Lunt, supervisor of highway and dining car operations of the Bangor & Aroostook, has been appointed assistant to the passenger traffic manager, with headquarters at Bangor, Me.

J. W. Hailey, assistant general freight agent of the Missouri Pacific Lines, at New Orleans, La., has retired after more than 44 years of service with the M. P.

G. A. Daniels, assistant to traffic manager of the Union Pacific, at Salt Lake City, Utah, has been appointed assistant general freight agent, with the same headquarters.

H. T. Harlow, general passenger agent of the Erie at Chicago, has retired after 45 years of service, and his duties have been assumed by **A. G. Oldenquist,** assistant general passenger agent at Chicago.

Wilson E. Pry, district freight agent of the Pennsylvania at Nashville, Tenn., has been promoted to district coal agent

at Buffalo, N. Y. **Robert S. Vipond,** special representative to the western freight traffic manager at Chicago, has been appointed district freight agent at Nashville.

Erwin Thomas has been appointed assistant industrial commissioner of the Chesapeake & Ohio and **V. D. Moore** and **G. D. Moffett, Jr.,** have been appointed industrial agents, all at Huntington, W. Va. **Harry B. May** has been appointed assistant industrial commissioner and **T. L. Diak,** industrial agent, both at Detroit, Mich.

MECHANICAL

W. E. Knecht, traveling engineer of the Litchfield & Madison, has been promoted to master mechanic in charge of locomotive and car departments, system.

E. L. Spicer, master mechanic of the Atlantic Coast Line, has been appointed shop superintendent, with headquarters as before at Waycross, Ga. **W. R. Witherspoon,** master mechanic at High Springs, Fla., has been transferred to Waycross. **L. H. Cooper,** master mechanic at Rocky Mount, N. C., has been appointed shop superintendent, with the same headquarters. **R. L. Ponton,** general foreman at Jacksonville, Fla., has been appointed master mechanic at Rocky Mount.

Harvey C. Griffith, whose appointment as chief electrical engineer of the Pennsylvania, at Philadelphia, Pa., was reported in the *Railway Age* of May 7, was born at New Enterprise, Pa., on June 17, 1890, and received his electrical engineering degree from Lehigh University in 1914. Mr. Griffith entered railroad service in February, 1915, as draftsman with the Penn-

Harvey C. Griffith

sylvania and was appointed inspector in November, 1917; foreman in November, 1919; assistant engineer in May, 1927; assistant electrical engineer in May, 1929; electrical engineer in July, 1935; and assistant chief engineer, traction—communications—signals in January, 1945. Mr. Griffith held the latter position until his recent appointment as chief electrical engineer.

PURCHASES & STORES

Alva G. Denham, whose promotion to general storekeeper of the St. Louis-San Francisco at Springfield, Mo., was reported in the *Railway Age* of May 28, was born in that city on November 1, 1892, and was educated in the local public schools and at Fort Scott, Kan. He entered railroad service with the Frisco in May, 1913, as a stock clerk, and in 1917 joined the armed forces. Three years later he became storekeeper at Joplin, Mo., and was subsequently advanced to division storekeeper at Fort Smith, Ark., returning to his native city in 1925 as chief clerk to the general storekeeper. After serving as assistant general storekeeper at Springfield from July, 1941, to August, 1946, Mr. Denham was appointed assistant general purchasing agent at St. Louis, Mo., the post he held at the time of his promotion.

ENGINEERING & SIGNALING

B. H. Prater, whose retirement as engineering consultant of the Union Pacific at Omaha, Neb., was reported in the *Railway Age* of June 11, was born on November 11, 1881, at Bingham, Ill., and was graduated from the University of Illinois as a civil engineer in 1903. He subsequently served as track appren-

B. H. Prater

tice with the Illinois Central, in the shops of the Illinois Steel Company, as clerk for the American Bridge Company, instructor at the University of Illinois and transitman at the Panama Canal. In May, 1906, he joined the U. P. as draftsman in the engineering department at Omaha, and held the position of engineer—maintenance of way at Pocatello, Idaho, from 1919 to 1925, when he became assistant engineer at Salt Lake City, Utah. Mr. Prater was appointed district engineer in Salt Lake City in 1936 and promoted to chief engineer at Omaha in January, 1937. In 1947 he became engineering consultant, holding that position until his retirement.

OBITUARY

W. D. Wiggins, retired vice-president—engineering of the Pennsylvania, died on June 12 at Bryn Mawr,, Pa., hospital, after an illness of several weeks. He was 76 years of age and had retired in April, 1943, after a career of 48 years.

P. S. Bazler, assistant engineer, office of chief engineer, maintenance of way, western region, of the Pennsylvania, died recently.

C. R. Swenson, late signal engineer of the Chicago, Rock Island & Pacific at Chicago, whose death was reported in the *Railway Age* of June 11, was born on June 3, 1898, at Kasota, Minn., and was graduated from the University of Minnesota's Institute of Technology. In 1922 he entered railroad service with the Great Northern as a signal helper, and served as maintainer and on construction work, later being promoted to foreman of signal construction. He joined the

C. R. Swenson

Pennsylvania in 1926, and subsequently served as assistant foreman, foreman and in various other capacities, including inspector of signal tests. In May, 1940, he was appointed supervisor of telegraph and signals on the Pennsylvania-Reading Seashore Lines and the Atlantic division of the Pennsylvania, becoming special representative, operating department, of the Rock Island in September, 1942. Mr. Swenson was promoted to signal engineer at Chicago in the following October, which position he held until his death.

R. W. Mabe, assistant chief engineer of the Nashville, Chattanooga & St. Louis, with headquarters at Nashville, Tenn., was killed on June 10 when his light plane crashed in Kentucky. A photo and a biographical sketch of Mr. Mabe appeared in the *Railway Age* of November 13, 1948, in connection with his promotion to the position of assistant chief engineer.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1949

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses						Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio			1949	1948
Akron, Canton & Youngstown	April	171	396,908	57	412,262	68,234	45,352	26,828	119,312	289,674	70.3	122,588	48,449	59,223	68,934
	4 mos.	171	1,627,053	228	1,693,788	298,902	195,729	114,811	501,782	1,226,599	72.4	467,189	183,211	220,779	371,821
Atchison, Topeka & Santa Fe System	April	13,103	30,911,947	3,621,693	38,179,864	7,406,400	7,943,540	1,039,098	13,287,390	31,409,653	82.3	6,770,211	3,812,179	2,921,572	3,270,730
	4 mos.	13,103	123,932,657	15,668,179	153,621,238	24,796,360	32,610,719	3,730,909	54,819,157	123,077,182	80.1	30,544,056	16,678,315	13,750,086	15,860,196
Atlanta & St. Andrews Bay	April	82	126,521	1,271	135,730	25,690	13,956	6,851	40,718	98,764	72.8	36,966	12,734	11,677	39,239
	4 mos.	82	649,124	4,985	682,932	119,085	64,482	27,224	182,127	439,017	64.3	243,915	95,351	92,204	146,987
Atlanta & West Point	April	93	249,702	42,469	327,311	38,667	45,763	14,172	162,906	286,342	87.5	40,969	18,798	5,813	23,594
	4 mos.	93	1,006,972	190,411	1,358,977	148,722	202,178	59,569	690,371	1,194,607	87.9	164,370	94,249	8,567	72,443
Western of Alabama	April	133	255,763	41,406	325,242	43,512	51,493	14,082	142,941	274,590	84.4	50,652	30,599	19,338	40,323
	4 mos.	133	1,043,112	188,653	1,355,444	175,672	224,538	59,107	613,785	1,158,586	85.8	196,858	128,331	76,962	154,869
Atlantic Coast Line	April	5,562	8,801,488	1,645,282	11,291,733	1,792,266	2,060,101	292,159	4,766,655	9,442,594	83.6	1,849,139	1,100,000	435,468	523,376
	4 mos.	5,562	36,602,974	8,182,295	48,188,360	6,574,783	8,303,183	1,253,002	19,403,708	37,782,964	78.4	10,405,396	5,000,000	4,358,487	4,645,521
Charleston & Western Carolina	April	343	433,021	2,286	443,552	74,264	73,715	15,767	184,522	361,299	81.5	82,253	30,000	36,773	3,065
	4 mos.	343	1,632,521	12,466	1,686,299	323,036	319,958	63,559	707,980	1,457,898	86.5	228,401	115,000	73,733	90,973
Baltimore & Ohio	April	6,202	30,042,111	1,750,150	33,576,154	4,158,435	6,319,058	771,204	13,551,033	26,243,521	78.2	7,332,633	3,088,150	3,363,480	3,095,712
	4 mos.	6,202	110,613,936	7,084,200	124,247,986	14,041,559	24,596,035	2,849,940	52,440,462	99,451,703	80.0	24,796,283	11,092,143	11,990,489	10,438,798
Staten Island Rapid Transit	April	29	180,782	53,342	239,247	44,030	38,621	1,831	121,508	236,814	99.0	2,433	33,199	—45,521	—53,704
	4 mos.	29	716,471	220,211	955,448	174,602	163,853	7,134	507,804	976,105	102.2	—20,657	137,603	—218,485	—237,316
Bangor & Aroostook	April	602	1,821,314	35,591	1,889,633	271,467	183,754	11,796	401,321	919,663	48.7	969,970	389,093	530,513	509,238
	4 mos.	602	6,716,115	144,299	6,983,846	1,020,827	742,612	47,264	1,582,282	3,584,849	51.3	3,398,997	1,458,556	1,798,195	1,627,486
Bessemer & Lake Erie	April	214	2,418,928	1,326	2,440,290	249,600	789,820	15,943	481,743	1,610,263	66.0	830,027	425,658	555,978	424,377
	4 mos.	214	5,898,535	4,370	5,982,363	728,766	2,339,243	71,122	1,661,602	5,094,164	85.2	888,199	724,960	873,117	959,902
Boston & Maine	April	1,757	5,719,859	938,000	7,244,298	1,074,395	1,123,835	109,805	2,999,272	5,611,738	77.5	1,632,560	699,251	615,194	943,511
	4 mos.	1,757	21,522,433	4,158,121	28,085,407	4,342,828	4,495,249	434,326	12,229,528	22,728,028	80.9	5,357,379	2,382,054	1,760,126	1,255,420
Burlington-Rock Island	April	228	367,692	50,217	443,616	66,659	51,397	4,495	174,868	318,889	71.9	124,727	11,233	50,578	62,191
	4 mos.	228	1,306,977	195,932	1,590,334	216,421	164,483	20,406	653,653	1,140,921	71.7	449,413	37,902	190,362	78,839
Cambria & Indiana	April	35	147,994	.....	148,036	16,016	71,051	848	26,686	132,463	83.4	24,573	53,489	66,351	—28,850
	4 mos.	35	548,559	.....	548,729	58,645	297,005	3,544	100,976	496,637	90.5	52,092	196,133	248,059	59,864
Canadian Pacific Lines in Maine	April	234	464,149	41,911	532,310	88,885	83,346	7,179	197,735	389,215	73.1	143,095	24,539	46,481	51,488
	4 mos.	234	2,590,442	164,478	2,853,910	318,909	389,539	28,118	1,006,475	1,797,999	63.0	1,055,911	103,205	626,907	419,015
Canadian Pacific Lines in Vermont	April	90	133,672	13,039	161,260	43,225	43,654	5,608	144,619	244,389	151.5	—83,129	13,224	—132,138	—92,768
	4 mos.	90	556,791	61,817	679,197	141,569	157,391	21,482	582,865	935,960	137.8	—256,763	52,524	—455,859	—491,786
Central of Georgia	April	1,815	2,519,533	253,930	3,036,921	487,247	484,461	114,383	1,442,759	2,709,043	89.2	327,878	209,777	88,482	162,177
	4 mos.	1,815	10,174,093	1,023,372	12,214,307	1,884,405	2,007,329	448,877	5,851,802	10,896,529	89.2	1,317,778	833,597	293,200	443,026
Central of New Jersey	April	415	2,375,989	513,391	3,083,501	421,025	510,270	54,353	1,582,661	2,752,129	89.3	331,372	406,984	—354,609	—221,980
	4 mos.	415	9,695,777	1,987,324	12,497,606	1,795,468	2,340,699	216,766	6,601,053	11,679,367	93.5	818,239	1,571,346	—1,877,785	—2,037,153
Central of Pennsylvania	April	212	1,468,283	12,840	1,524,092	147,750	285,175	22,625	455,248	952,979	62.5	571,113	72,053	760,397	751,505
	4 mos.	212	5,648,373	60,743	5,855,473	570,306	1,083,379	94,806	1,876,739	3,802,309	64.9	2,053,164	260,023	2,814,335	2,880,408
Central Vermont	April	422	695,000	61,000	805,000	132,341	145,348	16,852	343,673	682,554	84.8	122,446	46,692	45,666	58,384
	4 mos.	422	2,709,000	241,000	3,152,000	527,424	635,179	61,379	1,419,572	2,806,000	89.0	346,000	186,845	—14,383	68,711
Chesapeake & Ohio	April	5,104	26,973,275	792,333	28,973,990	3,605,123	5,346,909	529,556	9,093,136	19,767,199	68.2	9,206,791	4,107,753	5,048,258	676,594
	4 mos.	5,099	93,004,493	3,094,179	100,079,029	13,402,209	19,129,548	2,298,045	35,556,868	75,025,608	75.0	25,053,421	12,356,679	13,486,156	7,115,778
Chicago & Eastern Illinois	April	909	1,815,579	280,845	2,305,076	379,502	486,351	112,723	1,018,122	2,141,566	92.9	163,510	109,200	—71,514	243,464
	4 mos.	909	7,736,443	1,236,690	9,895,858	1,354,815	1,882,687	431,130	4,224,847	8,505,204	85.9	1,390,654	554,118	427,493	644,395
Chicago & Illinois Midland	April	131	822,317	853	837,282	78,712	143,863	24,663	206,549	488,678	58.4	348,604	131,238	187,603	70,420
	4 mos.	131	2,850,564	3,283	2,924,344	327,545	566,053	106,317	816,668	1,952,975	66.8	971,369	389,837	519,974	387,949
Chicago & North Western	April	8,076	10,798,915	1,506,855	13,721,686	2,554,603	3,265,354	330,984	6,768,942	13,703,158	99.9	18,528	1,023,263	—942,596	—71,771
	4 mos.	8,076	42,111,665	6,477,068	54,368,000	9,381,248	12,714,688	1,225,170	28,640,974	55,060,694	101.3	—692,694	4,092,356	—4,976,096	—2,431,363
Chicago, Burlington & Quincy	April	8,714	13,411,067	1,321,233	16,442,497	3,314,388	3,388,872	512,897	6,435,499	14,353,071	87.3	2,089,426	1,470,115	273,332	1,704,391
	4 mos.	8,714	57,062,849	5,154,083	68,633,571	10,213,427	13,093,794	1,829,510	26,549,880	54,545,646	79.5	14,087,925	7,888,038	4,575,204	9,245,813
Chicago Great Western	April	1,500	2,367,370	36,775	2,555,881	600,000	281,283	106,832	948,109	2,021,370	79.1	534,511	183,757	159,024	275,169
	4 mos.	1,500	9,850,817	156,903	10,680,539	1,846,638	1,258,503	431,366	4,273,245	8,124,553	76.1	2,555,986	887,818	850,853	967,092
Chicago, Indianapolis & Louisville	April	541	1,316,193	100,126	1,511,144	254,812	248,609	79,818	581,698	1,256,535	82.3	254,609	77,777	89,923	163,502
	4 mos.	541	5,188,858	372,925	5,933,896	992,016	1,040,358	319,445	2,366,099	5,080,843	85.6	853,053	313,817	235,311	568,550
Chicago, Milwaukee, St. Paul & Pacific	April	10,670	14,940,982	1,336,279	18,215,211	3,028,741	4,000,272	404,793	8,144,647	16,479,685	90.5	1,735,526	1,375,000	76,684	100,476
	4 mos.	10,671	62,489,473	5,548,255	75,126,382	11,077,418	16,311,535	1,680,488	35,645,792	68,353,763	91.0	6,772,619	5,548,000	—416,569	1,021,463
Chicago, Rock Island & Pacific	April	7,620	12,212,066	1,585,735	14,848,844	1,804,594	2,592,049	444,234	5,404,929	10,920,893	73.5	3,927,951	1,788,865	1,488,494	1,371,853
	4 mos.	7,625	47,312,174	7,078,951	58,676,291	6,761,835	9,515,289	1,831,335	23,331,830	44,271,164	75.4	14,405,127	6,458,650	5,172,233	4,493,254
Chicago, St. Paul, Minn. & Omaha	April	1,617	1,876,469	165,905	2,238,226	426,831	435,694	55,820	1,177,022	2,210,411	98.8	27,815	179,208	—226,521	—232,313
	4 mos.	1,617	8,405,266	718,420	9,869,389	1,448,178	1,896,382	229,564	5,317,144	9,368,097	94.9	501,292	729,596	—602,337	—614,681
Clinchfield	April	317	1,652,700	4,336	1,669,960	155,422	292,576	32,917	450,611	961,009	57.5	708,951	156,989	617,330	429,659
	4 mos.	317	5,703,178	17,181	5,770,368	672,376	1,170,617	134,666	1,687,957	3,784,459	65.6	1,985,909	622,654	1,557,123	2,117,838
Colorado & Southern	April	745	986,533	75,495	1,142,743	158,720	196,941	23,103	399,180	825,685	72.3	317,058	144,083	125,374	75,287
	4 mos.	745	3,644,989	287,420	4,256,682	525,820	818,266	100,085	1,800,410	3,446,587	81.0	810,095	403,109	235,952	305,149
Ft. Worth & Denver City	April	902	993,798	112,261	1,202,095	222,693	165,017	40,381	431,380	925,766	77.0	276,329	93,914	137,639	108,346
	4 mos.	902	3,650,646	467,328	4,488,342	756,187	705,779	169,185	1,766,081	3,682,061	82.0	806,281	281,401	362,558	379,030

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1949

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses					Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total				1949	1948
Colorado & Wyoming	April	41	155,313	.....	244,320	11,824	21,467	1,150	81,134	125,309	51.2	119,011	57,653	60,767	45,826
	4 mos.	41	582,763	.....	948,203	47,114	94,632	3,670	357,089	536,598	56.5	411,605	205,517	207,311	204,863
Columbus & Greenville	April	168	148,377	.....	154,740	29,712	25,995	4,166	44,645	120,189	77.7	34,551	21,226	16,003	45,428
	4 mos.	168	618,446	6	643,987	137,066	106,815	17,698	179,627	506,617	78.7	137,370	80,255	68,407	102,293
Delaware & Hudson	April	794	4,151,890	154,533	4,417,533	642,572	982,777	68,319	1,760,041	3,637,205	82.3	780,328	394,706	331,978	480,466
	4 mos.	794	15,981,432	706,395	17,114,415	2,287,357	3,926,533	277,357	7,128,616	14,330,635	83.7	2,783,780	1,491,491	1,192,774	1,913,174
Delaware, Lackawanna & Western	April	969	5,787,234	803,541	7,100,896	1,081,983	1,240,276	142,246	3,173,109	5,878,770	82.8	1,222,126	634,637	560,723	820,733
	4 mos.	969	21,888,359	3,273,986	27,204,239	3,595,643	5,021,220	598,892	12,560,237	22,722,102	83.5	4,482,137	2,420,985	1,964,193	2,427,608
Denver & Rio Grande Western	April	2,440	4,718,054	261,590	5,200,770	830,245	1,028,482	161,016	1,811,255	4,104,797	78.9	1,095,973	530,827	625,697	755,430
	4 mos.	2,442	20,380,630	991,275	22,453,742	2,673,290	4,219,349	616,832	8,258,440	16,859,004	75.1	5,594,738	2,515,576	3,008,954	3,591,266
Detroit & Mackinac	April	232	135,525	865	145,650	31,500	24,686	2,416	33,929	100,163	68.8	45,487	19,449	26,673	39,778
	4 mos.	232	532,733	3,342	577,545	126,000	99,039	7,920	137,012	401,103	69.4	176,442	73,439	108,000	169,953
Detroit & Toledo Shore Line	April	50	548,090	.....	550,207	55,676	43,596	12,362	159,764	282,358	51.3	267,849	85,709	102,063	76,484
	4 mos.	50	2,335,654	.....	2,346,521	172,590	180,434	52,252	677,997	1,131,477	48.2	1,215,044	391,191	467,051	399,582
Detroit, Toledo & Ironton	April	464	1,279,092	581	1,324,309	157,465	239,630	26,658	350,103	815,129	61.6	509,180	208,547	243,502	87,573
	4 mos.	464	5,848,601	2,283	6,022,112	633,336	918,928	101,178	1,433,469	3,240,250	53.8	2,781,862	1,105,807	1,451,107	1,052,904
Duluth, Missabe & Iron Range	April	575	4,530,360	1,907	5,278,546	532,396	538,455	8,598	1,388,985	2,530,169	47.9	2,748,377	353,995	2,384,030	1,758,905
	4 mos.	575	5,773,634	7,121	6,704,036	2,383,626	2,002,478	32,396	2,946,913	7,613,777	113.6	—909,741	611,959	—1,594,609	—1,918,624
Duluth, Winnipeg & Pacific	April	175	221,000	2,400	225,800	89,120	49,295	4,306	112,892	261,926	116.0	—36,126	19,184	—81,021	—2,564
	4 mos.	175	1,119,000	5,800	1,137,800	260,358	198,798	16,895	551,453	1,051,769	92.4	86,031	92,915	—135,908	143,266
Elgin, Joliet & Eastern	April	238	3,462,988	2	4,093,814	289,345	597,206	29,197	1,327,260	2,359,156	57.6	1,734,658	636,441	726,631	391,337
	4 mos.	238	13,689,790	11	16,276,549	995,953	2,366,022	113,465	5,527,319	9,448,250	58.0	6,828,299	2,545,107	2,891,343	1,744,344
Erie	April	2,230	11,167,717	603,459	12,613,910	1,895,387	2,360,820	322,900	5,205,009	10,422,559	82.6	2,191,351	1,087,308	844,395	1,355,313
	4 mos.	2,230	44,919,784	2,398,197	50,404,271	6,086,674	9,464,468	1,266,258	21,407,250	40,751,854	80.9	9,652,417	4,571,122	3,905,864	5,366,851
Florida East Coast	April	575	1,956,789	647,711	2,854,565	401,527	402,961	71,314	1,034,415	2,107,051	73.8	747,514	302,016	253,986	461,426
	4 mos.	575	7,688,933	3,366,539	12,105,936	1,512,084	1,694,973	270,090	4,308,140	8,610,259	71.1	3,495,677	1,199,550	1,720,737	1,990,986
Georgia Railroad	April	326	594,709	27,000	666,093	109,391	99,109	28,371	331,556	599,886	90.1	66,207	34,685	49,002	113,506
	4 mos.	326	2,459,202	129,107	2,757,518	414,796	403,025	117,967	1,347,934	2,407,186	87.3	350,332	139,085	281,378	336,389
Georgia & Florida	April	408	220,173	56	223,449	60,340	38,318	15,834	96,255	222,005	99.3	1,444	15,531	—27,166	—44,211
	4 mos.	408	918,474	959	932,766	313,819	143,112	62,282	406,311	972,128	104.2	—39,362	64,244	—167,361	—84,768
Grand Trunk Western	April	971	3,482,000	171,000	3,945,000	664,675	685,946	68,091	1,759,395	3,327,680	84.4	617,320	224,823	283,412	—80,472
	4 mos.	971	13,597,000	697,000	15,398,000	2,386,335	2,817,040	255,534	7,119,534	13,188,701	85.7	2,209,299	952,785	937,757	117,691
Canadian Natl. Lines in New Eng.	April	172	120,000	6,500	161,000	54,241	40,753	2,863	134,116	244,821	152.1	—83,821	22,576	—135,650	—123,496
	4 mos.	172	599,000	26,500	708,000	219,423	222,030	11,492	512,835	1,012,063	142.9	—304,063	90,304	—520,642	—440,349
Great Northern	April	8,318	15 196,142	886,440	17,546,235	3,632,673	2,948,845	380,301	6,177,965	13,776,638	78.5	3,769,597	1,537,249	2,007,949	1,871,237
	4 mos.	8,318	51 047,058	3,333,007	59,017,284	11,845,576	12,328,007	1,408,623	25,434,059	53,478,180	90.6	5,539,104	5,493,183	—1,180,935	2,278,104
Green Bay & Western	April	224	292,589	10	296,573	79,602	28,223	18,130	91,987	230,210	77.6	66,363	30,914	19,843	11,350
	4 mos.	224	1,126,922	56	1,160,122	250,493	133,699	73,460	383,970	893,093	77.0	267,029	128,830	77,516	113,147
Gulf, Mobile & Ohio	April	2,901	5,214,019	424,334	6,058,071	1,124,685	1,115,030	187,147	1,921,293	4,642,481	76.6	1,415,590	576,408	541,715	659,161
	4 mos.	2,901	21,163 612	1,783,016	24,658,045	4,312,714	4,383,889	892,960	8,178,525	19,003,002	77.1	5,655,043	2,300,932	2,215,560	2,224,168
Illinois Central	April	6,552	16,821,861	2,046,098	21,210,932	3,832,365	3,778,222	443,555	7,730,814	16,715,739	78.8	4,495,193	2,437,083	1,968,357	2,154,076
	4 mos.	6,552	68,083,470	8,000,134	84,633,392	13,546,369	14,891,587	1,782,448	31,921,174	65,898,820	77.9	18,734,572	9,803,877	8,150,412	7,601,839
Illinois Terminal	April	474	745,146	111,323	961,291	153,889	140,558	32,811	385,283	750,778	78.1	210,513	103,231	97,465	170,019
	4 mos.	474	3,093,738	445,636	3,907,621	600,324	540,051	145,065	1,576,030	3,034,053	77.6	873,568	437,768	421,523	579,189
Kansas City Southern	April	891	3,002,459	91,080	3,350,846	300,789	379,611	82,390	988,703	1,883,590	56.2	1,467,256	515,000	760,235	817,980
	4 mos.	891	12,144,340	349,243	13,455,158	1,165,557	1,531,939	373,535	3,827,172	7,425,031	55.2	6,030,127	2,140,000	3,162,058	3,052,193
Kansas, Oklahoma & Gulf	April	328	439,544	718	444,095	60,060	32,493	14,388	116,807	242,498	54.6	201,597	88,863	84,077	88,619
	4 mos.	328	1,899,406	3,013	1,917,964	211,545	155,376	67,671	511,181	1,021,932	53.3	896,032	388,330	373,487	25,644
Lake Superior & Ishpeming	April	156	349,057	48	419,422	53,779	43,514	2,103	93,058	201,769	48.1	217,653	25,098	196,811	163,580
	4 mos.	156	560,444	179	652,861	157,064	208,603	7,382	235,227	645,894	98.9	6,967	96,307	—71,802	—127,260
Lehigh & Hudson River	April	96	252,046	.....	252,658	31,628	38,492	9,625	99,158	189,183	74.9	63,475	24,973	18,803	38,042
	4 mos.	96	950,624	.....	953,327	119,010	155,319	37,076	382,630	733,110	76.9	220,217	91,735	50,425	100,219
Lehigh & New England	April	191	686,069	.....	692,514	143,808	109,710	11,060	174,372	469,205	67.8	223,309	109,389	138,855	110,912
	4 mos.	191	2,088,498	.....	2,112,775	434,340	442,118	44,139	661,197	1,708,782	80.9	403,993	249,976	270,984	382,329
Lehigh Valley	April	1,252	5,382,063	338,794	6,010,337	843,574	1,013,788	137,029	2,504,866	4,743,583	78.9	1,266,754	419,916	695,305	509,634
	4 mos.	1,252	20,845,118	1,352,706	23,343,201	3,106,699	3,938,677	560,581	10,464,235	19,075,617	81.7	4,267,584	1,620,764	2,006,113	1,281,529
Louisiana & Arkansas	April	756	1,423,960	59,401	1,555,404	196,634	196,459	48,857	490,334	997,564	64.1	557,840	214,927	258,819	294,589
	4 mos.	756	5,627,011	240,983	6,118,367	792,952	733,728	204,165	1,990,116	3,940,811	64.4	2,177,556	841,383	1,029,644	1,019,478
Louisville & Nashville	April	4,775	13,501,001	1,150,674	15,607,378	2,270,589	3,445,485	298,400	6,526,312	13,119,491	84.1	2,487,887	1,647,495	1,216,115	135,720
	4 mos.	4 772	54,112,139	4,734,243	62,685 691	9,107,013	13,677,248	1,206,302	26,245,952	52,637,747	84.0	10,047,944	6,605,263	5,046,143	4,255,565

Table continued on next left-hand page

there is a place

WE FIRMLY BELIEVE that for a long, long time, there will continue to be a demand for steam locomotives.

Therefore, while we *are* building diesel-electrics for the switching field — and while we have nearly completed experimental work on the free-piston gas generator for locomotive use — we will continue to build a complete line of steam locomotives.

We will continue to explore all possible ways of improving such locomotives. We will continue to build them with the traditional fineness of design and manufacture that is responsible for Lima's world-wide reputation. And we will continue to believe that there is a place for these locomotives — for such modern power as the 2-8-4's we are now building, as our fifth order for the Nickel Plate.

LIMA HAMILTON CORPORATION

DIVISIONS: *Lima, Ohio* — Lima Locomotive Works Division; Lima Shovel and Crane Division. *Hamilton, Ohio* — Hooven, Owens, Rentschler Co.; Niles Tool Works Co. *Middletown, Ohio* — The United Welding Co.

PRINCIPAL PRODUCTS: Locomotives; Cranes and shovels; Niles heavy machine tools; Hamilton diesel and steam engines; Hamilton heavy metal stamping presses; Hamilton-Kruse automatic can-making machinery; Special heavy machinery; Heavy iron castings; Weldments.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1949

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses					Operating ratio	Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total				1949	1948
Ma'ne Central	April	981	2,008,853	126,558	2,262,230	387,228	462,836	23,312	720,115	1,674,343	74.0	587,887	274,301	219,442	232,543
	4 mos.	981	8 339 142	529,199	9,335,795	1,362,290	1,752,167	78,489	3,109,151	6,572,436	70.4	2,763,359	1,345,726	1,119,081	802,682
Midland Valley	April	334	157,205	5	161,556	37,923	22,466	3,783	54,259	125,136	77.5	36,420	14,120	16,396	13,243
	4 mos.	334	617,567	30	631,876	138,414	75,663	14,739	217,124	473,561	74.9	158,315	81,244	43,540	76,114
Minneapolis & St. Louis	April	1,421	1,397,440	8,528	1,451,474	307,752	274,038	115,804	542,942	1,337,124	92.1	114,350	93,493	27,178	48,283
	4 mos.	1,421	5,892,701	36,265	6,106,670	1,091,414	1,019,062	436,162	2,233,277	5,142,400	84.2	964,270	551,346	365,721	339,518
Minn., St. Paul & S. Ste. Marie	April	3,224	2,501,714	75,022	2,746,440	493,588	427,692	64,198	1,174,753	2,255,821	82.1	490,619	196,824	263,825	—149,298
	4 mos.	3,224	8,596,148	303,786	9,487,279	2,131,085	2,047,862	250,884	4,706,082	9,541,111	100.6	—53,832	734,097	—962,519	—1,438,895
Duluth, South Shore & Atlantic	April	530	535,615	8,048	567,644	91,173	97,421	16,266	185,266	401,816	70.8	165,828	24,668	116,953	86,765
	4 mos.	530	1,730,404	36,131	1,849,175	386,101	396,454	73,222	836,351	1,736,862	93.9	112,313	93,163	—57,536	178,134
Spokane International	April	152	178,544	1,253	190,238	39,295	16,480	4,023	60,508	128,554	67.6	61,684	11,234	36,640	13,153
	4 mos.	152	560,052	5,571	613,262	172,199	73,985	16,248	260,128	558,881	91.1	54,381	44,192	—37,106	50,330
Mississippi Central	April	148	168,566	131	173,347	59,727	19,839	11,954	48,167	150,711	86.9	22,636	8,897	319	14,130
	4 mos.	148	759,980	137	778,353	201,329	87,619	50,224	207,479	583,997	75.0	194,356	81,418	51,853	63,584
Missouri-Illinois	April	172	348,297	128	350,714	64,959	47,346	6,320	96,242	218,795	62.4	131,919	39,377	86,812	81,094
	4 mos.	172	1,413,594	721	1,422,455	238,027	187,469	28,346	383,861	859,619	60.4	562,836	222,002	322,239	305,772
Missouri-Kansas-Texas Lines	April	3,253	5,160,770	348,879	5,985,209	981,630	937,104	200,554	2,208,582	4,585,906	76.6	1,399,303	544,502	519,666	651,310
	4 mos.	3,253	21,950,586	1,459,349	25,214,436	3,820,287	3,622,497	878,088	10,022,085	19,474,274	77.2	5,740,162	2,198,061	1,870,936	1,769,403
Missouri Pacific	April	7,004	13,831,098	905,808	16,176,164	2,654,290	2,907,266	409,866	6,127,396	12,678,627	78.4	3,497,537	1,196,827	1,740,774	2,165,333
	4 mos.	7,006	57,321,146	3,928,609	66,878,856	9,901,216	11,689,865	1,663,454	26,846,511	52,482,349	78.5	14,396,507	4,948,963	7,115,468	6,078,677
Gulf Coast Lines	April	1,717	3,006,951	84,757	3,254,653	603,600	398,860	78,264	1,080,462	2,276,865	70.0	977,788	295,637	480,571	933,027
	4 mos.	1,717	12,825,690	378,676	13,868,613	2,466,677	1,698,249	320,531	4,674,562	9,652,351	69.6	4,216,262	1,215,401	2,051,576	3,363,008
International-Great Northern	April	1,110	2,183,667	158,467	2,623,095	453,166	390,428	51,324	1,131,720	2,135,201	81.4	487,894	109,474	230,482	—110,397
	4 mos.	1,110	8,670,834	654,187	10,386,288	1,829,329	1,645,673	210,410	4,549,947	8,664,398	83.4	1,721,890	453,080	685,318	60,277
Monongahela	April	170	753,893	1,024	761,846	80,445	73,145	1,084	217,910	379,017	49.7	382,829	94,543	155,195	—5,448
	4 mos.	170	2,496,678	4,160	2,520,057	329,526	275,963	3,890	831,409	1,462,424	58.0	1,057,633	369,648	202,186	204,185
Montour	April	51	342,287	.....	342,463	19,427	89,506	829	93,261	214,569	62.7	127,894	72,018	88,556	49,243
	4 mos.	51	979,028	.....	984,421	72,476	310,805	3,364	321,456	751,662	76.4	232,759	212,070	245,115	223,715
Nashville, Chatt. & St. Louis	April	1,051	2,441,244	176,145	2,898,126	482,651	389,127	105,895	1,111,687	2,212,138	76.3	685,988	328,388	340,655	294,849
	4 mos.	1,051	9,214,275	769,812	11,020,547	1,758,361	1,384,061	423,977	4,567,076	8,602,209	78.1	2,418,338	1,235,688	1,135,424	837,516
New York Central	April	10 731	44,913,095	9,249,359	60,751,359	8,010,864	13,466,038	975,353	27,211,790	52,582,265	86.6	8,169,094	4,569,177	2,148,721	1,860,966
	4 mos.	10,731	16,617,187	38,861,018	239,507,962	30,015,586	48,632,172	4,056,526	110,054,570	205,413,301	85.8	34,094,661	18,116,695	10,217,630	—868,743
Pittsburgh & Lake Erie	April	221	3,885,640	74,761	4,142,372	490,517	1,071,265	68,720	1,292,748	3,105,337	75.0	1,037,035	651,465	951,667	584,117
	4 mos.	221	14,107,183	332,445	15,122,756	1,728,425	3,940,047	266,161	5,273,831	11,977,228	79.2	3,145,528	2,343,575	3,183,194	2,494,253
New York, Chicago & St. Louis	April	1,687	8,167,335	117,588	8,493,293	1,084,285	1,404,709	225,208	2,886,775	5,932,890	69.9	2,560,403	1,014,155	1,209,445	1,033,824
	4 mos.	1,687	32,989,606	496,762	34,265,162	4,430,334	5,463,479	876,620	12,139,358	24,119,870	70.4	10,145,292	3,977,257	4,781,504	4,631,117
New York, New Haven & Hartford	April	1,798	7,480,863	3,930,954	12,691,454	1,851,845	1,781,486	235,449	5,101,527	9,734,960	76.7	2,956,494	1,214,000	1,064,260	1,636,775
	4 mos.	1,798	29,332,210	16,188,514	50,400,551	7,178,926	7,321,255	980,876	21,485,353	40,226,738	79.8	10,173,813	4,111,000	3,146,613	535,826
New York Connecting	April	21	220,753	.....	237,659	68,980	18,002	.....	64,336	153,661	64.7	83,998	61,244	47,949	124,829
	4 mos.	21	903,096	.....	954,760	256,682	102,195	.....	239,483	607,904	63.7	346,856	251,721	181,751	153,982
New York, Ontario & Western	April	544	370,054	1,553	399,572	60,422	68,041	27,964	180,478	363,840	91.1	35,732	30,587	—45,465	—151,005
	4 mos.	544	1,867,669	8,767	2,044,476	361,751	352,444	120,387	1,038,316	2,002,010	97.9	42,466	143,596	—335,415	—664,010
New York, Susquehanna & Western	April	120	333,892	42,270	391,014	49,895	55,105	6,686	169,858	307,262	78.6	83,752	32,759	24,988	49,347
	4 mos.	120	1,346,524	172,668	1,570,757	192,463	216,322	25,420	713,970	1,261,989	80.3	308,768	124,486	69,904	37,413
Norfolk & Western	April	2,129	15,161,646	474,850	16,335,913	1,995,314	3,375,004	273,499	4,596,520	10,806,710	66.2	5,529,203	2,792,499	3,376,794	1,579,764
	4 mos.	2,129	52,186,316	1,922,568	56,598,157	7,605,112	12,335,138	1,069,369	17,810,161	41,013,731	72.5	15,584,426	8,918,254	9,594,962	9,126,806
Norfolk Southern	April	683	701,413	2,215	730,431	117,880	98,992	42,691	236,384	560,435	76.7	169,996	96,984	49,806	47,015
	4 mos.	683	2,817,576	2,594	2,919,924	530,933	361,126	172,764	973,895	2,277,336	78.0	642,588	351,930	207,377	190,732
Northern Pacific	April	6,889	10,772,727	474,553	12,153,051	2,533,228	2,536,379	282,858	4,502,550	10,423,315	85.8	1,729,736	1,131,924	839,587	1,879,811
	4 mos.	6,889	38,634,847	2,125,861	44,332,483	9,400,670	10,024,569	1,049,272	18,889,941	41,835,952	94.4	2,496,531	4,520,437	—1,004,610	2,885,884
Northwestern Pacific	April	331	640,520	6,082	668,577	193,104	81,372	5,760	317,954	612,679	91.6	55,898	37,872	—28,388	—705
	4 mos.	331	2,256,684	19,146	2,370,105	728,230	338,097	18,225	1,236,123	2,374,603	100.2	—4,498	146,111	—306,919	—37,668
Oklahoma City-Ada-Atoka	April	132	92,206	.....	93,409	20,504	4,339	1,609	20,488	50,464	54.0	42,945	15,437	15,086	8,347
	4 mos.	132	344,341	19	347,511	73,322	18,592	6,180	85,242	198,164	57.0	149,347	58,261	44,767	28,940
Pennsylvania	April	10,142	59,584,241	12,676,901	80,020,786	10,457,043	16,795,810	1,247,072	33,776,216	65,237,744	81.5	14,783,042	6,736,613	6,413,662	—2,089,673
	4 mos.	10,142	228,504,986	52,548,012	307,947,726	37,109,749	66,589,160	5,028,383	138,848,887	259,738,823	84.3	48,208,903	26,333,304	15,434,610	347,038
Long Island	April	376	1,173,942	2,814,621	4,185,547	491,438	683,163	16,038	2,220,114	3,613,211	86.3	572,336	458,265	—144,692	—745,704
	4 mos.	376	4,361,401	9,996,906	15,111,480	2,319,913	3,183,791	166,289	9,132,881	15,668,153	103.7	—556,673	1,847,700	—3,477,552	—3,485,544

Table continued on next left-hand page

Simplified CONTROL of Steam Locomotives

As fast and as dependable as the operating principle of the air brake

THE THROTTLE MASTER

Investigate!

A-1907

AMERICAN THROTTLE COMPANY
INCORPORATED
60 East 42nd Street, New York 17, N. Y.
122 S. Michigan Avenue, Chicago 3, Ill.

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF APRIL AND FOUR MONTHS OF CALENDAR YEAR 1949

Name of road		Av. mileage operated during period	Operating revenues			Operating Expenses						Net from railway operation	Railway tax accruals	Net railway operating income	
						Maintenance of									
			Freight	Passenger	Total (inc. misc.)	Way and structures	Equipment	Traffic	Transportation	Total	Operating ratio			1949	1948
Pennsylvania-Reading Seashore Lines	April	386	497,597	173,357	695,714	231,786	195,738	10,995	546,959	1,016,084	146.0	—320,370	88,955	—520,980	—353,535
	4 mos.	386	1,904,706	665,830	2,669,408	829,717	775,374	40,776	2,239,624	4,015,860	150.4	—1,346,452	359,104	—2,153,382	—1,544,683
Pittsburg & Shawmut	April	97	232,723	.....	233,471	48,141	43,887	4,556	58,958	163,372	70.0	70,099	49,515	18,681	9,341
	4 mos	97	722,018	.....	725,885	118,449	162,072	15,875	214,949	545,867	75.2	180,018	66,894	124,729	135,699
Pittsburgh & West Virginia	April	135	656,440	.....	674,812	145,602	146,171	42,909	173,985	542,263	80.4	132,549	74,035	106,178	121,131
	4 mos.	135	2,760,947	.....	2,846,332	513,662	541,739	166,707	720,251	2,077,062	72.9	769,270	376,846	541,719	555,183
Reading	April	1,324	8,958,572	616,224	10,074,085	1,695,335	1,837,477	128,487	3,917,496	7,909,828	78.5	2,164,257	1,112,432	1,090,537	803,070
	4 mos.	1,325	34,599,122	2,686,476	39,381,492	6,369,716	7,971,037	521,950	16,155,118	32,281,700	82.0	7,099,792	3,598,656	3,174,734	3,224,027
Richmond, Fredericksburg & Potomac	April	118	1,289,473	512,596	2,062,531	415,385	296,212	22,441	925,566	1,798,195	87.2	264,336	144,459	4,018	371,315
	4 mos.	118	5,160,254	2,348,815	8,484,149	1,411,198	1,367,511	88,011	3,741,399	7,158,698	84.4	1,325,451	694,596	253,814	988,784
Rutland	April	407	350,065	25,874	442,340	73,762	80,458	15,569	252,081	438,576	99.1	3,764	25,996	—38,770	5,222
	4 mos.	407	1,367,255	122,598	1,784,702	361,869	405,175	59,879	1,050,990	1,949,547	109.2	—164,845	121,261	—357,059	—82,051
Sacramento Northern	April	271	160,657	.....	168,567	94,692	20,913	1,988	53,588	178,424	105.8	—9,857	13,200	—31,878	—60,609
	4 mos.	271	585,045	.....	607,688	369,515	83,102	8,280	259,254	755,686	124.4	—147,998	52,170	—242,807	—223,337
St. Louis-San Francisco	April	4,645	7,313,724	487,306	8,415,759	1,545,309	1,555,093	234,612	3,543,498	7,281,167	86.5	1,134,592	622,152	520,738	776,645
	4 mos.	4,645	29,522,869	2,311,522	34,344,113	5,954,396	5,988,491	968,121	14,450,475	28,994,737	84.4	5,349,376	2,890,595	2,490,650	2,554,495
St. Louis, San Francisco & Texas	April	159	383,854	6,214	414,118	52,661	35,849	15,558	176,911	291,909	70.5	122,209	32,625	46,579	49,877
	4 mos.	159	1,357,152	47,516	1,479,269	199,714	130,901	66,089	650,989	1,089,598	73.7	389,671	111,962	137,412	114,096
St. Louis Southwestern Lines	April	1,569	4,572,237	60,056	4,805,936	660,228	674,981	144,068	1,589,194	3,242,270	67.5	1,563,666	675,337	673,288	948,936
	4 mos.	1,569	19,541,330	231,584	20,460,482	2,421,775	2,737,715	564,462	6,782,270	13,196,331	64.5	7,264,151	2,952,946	3,398,453	4,056,429
Seaboard Air Line	April	4,153	9,161,784	1,439,405	11,305,805	1,901,691	2,005,912	334,554	4,261,811	9,030,794	79.9	2,275,011	1,035,224	977,231	1,068,310
	4 mos.	4,153	36,841,633	6,580,873	46,630,421	7,628,478	8,219,280	1,315,040	17,747,463	37,167,420	79.7	9,463,001	4,310,998	4,118,159	4,688,529
Southern Ry	April	6,411	15,600,734	1,512,311	18,474,820	2,811,503	3,399,992	366,761	7,138,938	14,477,342	78.4	3,997,478	1,839,326	1,806,285	1,879,890
	4 mos.	6,411	61,835,351	5,949,797	73,038,722	11,227,871	14,185,570	1,462,189	28,700,755	58,737,395	80.4	14,301,327	6,714,854	6,400,380	9,001,617
Alabama Great Southern	April	316	1,177,375	102,843	1,385,239	185,885	283,159	29,615	517,273	1,070,536	77.3	314,703	201,076	162,852	175,731
	4 mos.	316	4,612,994	395,924	5,404,501	836,027	1,130,501	120,151	1,909,024	4,217,587	78.0	1,186,914	725,103	588,566	730,077
Cinn., New Orleans & Texas Pacific	April	337	3,030,711	242,675	3,446,310	363,816	526,927	60,743	998,734	2,058,155	59.7	1,388,155	664,616	785,116	701,969
	4 mos.	337	11,222,602	799,037	12,696,521	1,646,090	2,407,562	235,637	3,894,044	8,638,853	68.0	4,057,668	2,024,817	2,265,032	2,597,952
Georgia Southern & Florida	April	397	526,551	100,565	681,206	139,868	65,077	7,296	230,029	458,588	67.3	222,618	60,049	65,859	13,457
	4 mos.	397	1,972,693	360,969	2,577,531	567,999	223,949	29,462	889,596	1,782,251	69.1	795,280	226,181	237,655	184,470
New Orleans & Northeastern	April	204	778,145	54,056	882,436	193,552	84,302	17,456	192,955	528,443	59.9	353,993	167,081	148,708	164,904
	4 mos.	204	2,949,857	229,681	3,378,228	567,421	353,513	76,302	808,228	1,966,272	58.2	1,411,956	625,402	595,318	777,252
Southern Pacific	April	8,171	28,445,664	3,145,122	33,950,226	4,511,070	6,820,385	769,663	13,447,588	27,494,768	81.0	6,455,458	3,460,396	2,264,792	2,926,882
	4 mos.	8,172	106,374,635	13,294,821	129,102,004	17,882,395	26,922,490	2,884,547	55,369,233	110,814,471	85.8	18,287,533	10,822,451	4,898,102	11,156,559
Texas & New Orleans	April	4,316	7,778,166	674,789	9,065,050	1,477,034	1,424,456	213,535	3,497,217	7,087,983	78.2	1,977,067	867,216	712,821	1,322,930
	4 mos.	4,316	33,329,726	2,911,525	38,694,996	6,017,207	5,808,555	862,272	15,232,119	29,867,882	77.2	8,827,114	3,812,921	3,192,597	4,972,221
Spokane, Portland & Seattle	April	945	1,732,901	67,815	1,913,384	511,185	223,034	22,592	652,474	1,505,252	78.7	408,132	153,148	140,751	248,931
	4 mos.	945	6,640,051	344,697	7,430,121	1,475,695	930,573	90,076	2,920,619	5,778,480	77.8	1,651,641	635,168	603,432	256,927
Tennessee Central	April	286	346,274	4,806	369,325	73,857	58,529	9,823	141,237	303,089	82.1	66,236	26,340	22,175	270
	4 mos.	286	1,451,499	11,532	1,543,540	259,755	219,357	39,519	655,841	1,245,879	80.7	297,661	106,446	87,350	—170,001
Texas & Northern	April	8	103,015	.....	119,787	5,249	9,089	296	22,608	44,406	37.1	75,381	23,954	34,124	.....
	4 mos.	8	379,620	.....	441,290	19,742	31,009	1,816	118,714	196,176	44.5	245,114	81,389	114,748	.....
Texas & Pacific	April	1,854	4,332,067	400,567	5,157,692	670,719	797,850	163,539	2,014,840	3,944,921	76.5	1,212,771	426,739	515,577	572,527
	4 mos.	1,854	18,100,066	1,690,484	21,439,542	2,874,300	3,375,125	664,665	8,771,561	16,868,866	78.7	4,570,676	1,466,348	2,150,592	2,425,662
Texas-Mexican	April	162	262,095	.....	283,698	45,087	21,597	5,701	66,077	152,626	53.8	131,072	52,572	58,271	55,979
	4 mos.	162	988,257	.....	1,087,057	190,960	101,661	23,530	292,090	667,404	61.4	419,653	155,532	188,589	161,152
Toledo, Peoria & Western	April	239	392,110	33	397,984	84,651	26,345	35,239	103,166	274,799	69.1	123,095	52,135	48,979	54,952
	4 mos.	239	1,539,449	71	1,561,197	258,313	105,867	130,376	406,056	1,000,222	64.1	560,975	222,880	250,399	227,771
Union Pacific	April	9,727	25,803,423	2,366,893	30,854,037	4,846,289	6,234,645	867,856	11,008,285	24,702,234	80.1	6,151,803	4,083,618	1,180,667	991,909
	4 mos.	9,727	96,279,596	8,766,284	115,331,305	20,094,622	23,589,592	3,224,202	48,484,340	103,035,380	89.3	12,295,925	11,127,942	—2,568,482	7,291,646
Utah	April	111	117,120	.....	117,202	31,454	52,423	744	54,665	146,966	125.4	—29,764	13,437	—37,144	—43,792
	4 mos.	111	689,976	.....	691,439	124,202	212,054	2,971	328,105	698,341	101.0	—6,902	54,309	—52,678	—69,946
Virginian	April	663	3,242,042	3,759	3,375,920	426,892	842,600	41,199	733,946	2,123,788	62.9	1,252,132	577,000	802,998	137,269
	4 mos.	663	11,821,052	15,770	12,267,781	1,505,983	3,119,254	159,752	2,904,523	8,007,363	65.3	4,260,418	1,977,500	2,756,036	1,639,930
Wabash	April	2,393	6,382,403	350,715	7,288,758	1,227,301	1,023,221	268,261	3,237,320	6,081,585	83.4	1,207,173	549,553	402,020	775,722
	4 mos.	2,393	25,607,619	1,521,550	29,190,776	4,424,432	4,481,943	1,033,854	13,082,098	24,231,343	83.0	4,959,433	2,202,539	1,509,807	3,854,265
Ann Arbor	April	294	667,020	2,744	680,515	84,408	102,844	23,469	295,194	523,849	77.0	156,666	68,541	71,829	63,505
	4 mos.	294	2,486,986	9,902	2,537,533	321,245	452,804	92,781	1,176,069	2,104,751	82.9	432,782	211,572	172,993	184,417
Western Maryland	April	837	3,634,283	10,376	3,830,505	468,803	776,292	75,248	1,139,250	2,602,250	67.9	1,228,255	590,000	735,357	365,182
	4 mos.	837	14,513,728	39,797	15,205,152	1,903,562	2,955,829	287,426	4,560,500	10,265,120	67.5	4,940,032	2,345,000	2,898,341	2,233,470
Western Pacific	April	1,195	3,253,250	313,225	3,674,703	511,943	590,048	189,367	1,149,312	2,695,647	73.4	979,056	408,036	525,268	63,585
	4 mos.	1,195	11,587,955	846,850	12,786,070	2,015,514	2,318,359	641,427	4,935,314	10,798,208	84.5	1,987,862	944,716	845,056	1,024,618
Wheeling & Lake Erie	April	506	3,083,932	.....	3,266,537	416,040	526,184	66,750	959,017	2,063,844	63.2	1,202,693	632,138	749,462	508,790
	4 mos.	506	10,985,350	11	11,431,335	1,417,836	1,882,472	266,370	3,473,038	7,384,074	64.6	4,047,261	2,159,959	2,655,087	2,302,437
Wisconsin Central	April	1,051	2,136,065	37,507	2,314,388	312,967	366,420	59,057	1,061,547	1,882,042	81.3	432,346	150,661	169,824	490,369
	4 mos.	1,051	8,216,836	146,744	8,820,069	1,124,079	1,444,401	237,829	4,025,696	7,169,220	81.3	1,650,849	560,791	564,824	953,162

Freight Operating Statistics table appears on next left-hand page

STAMINA

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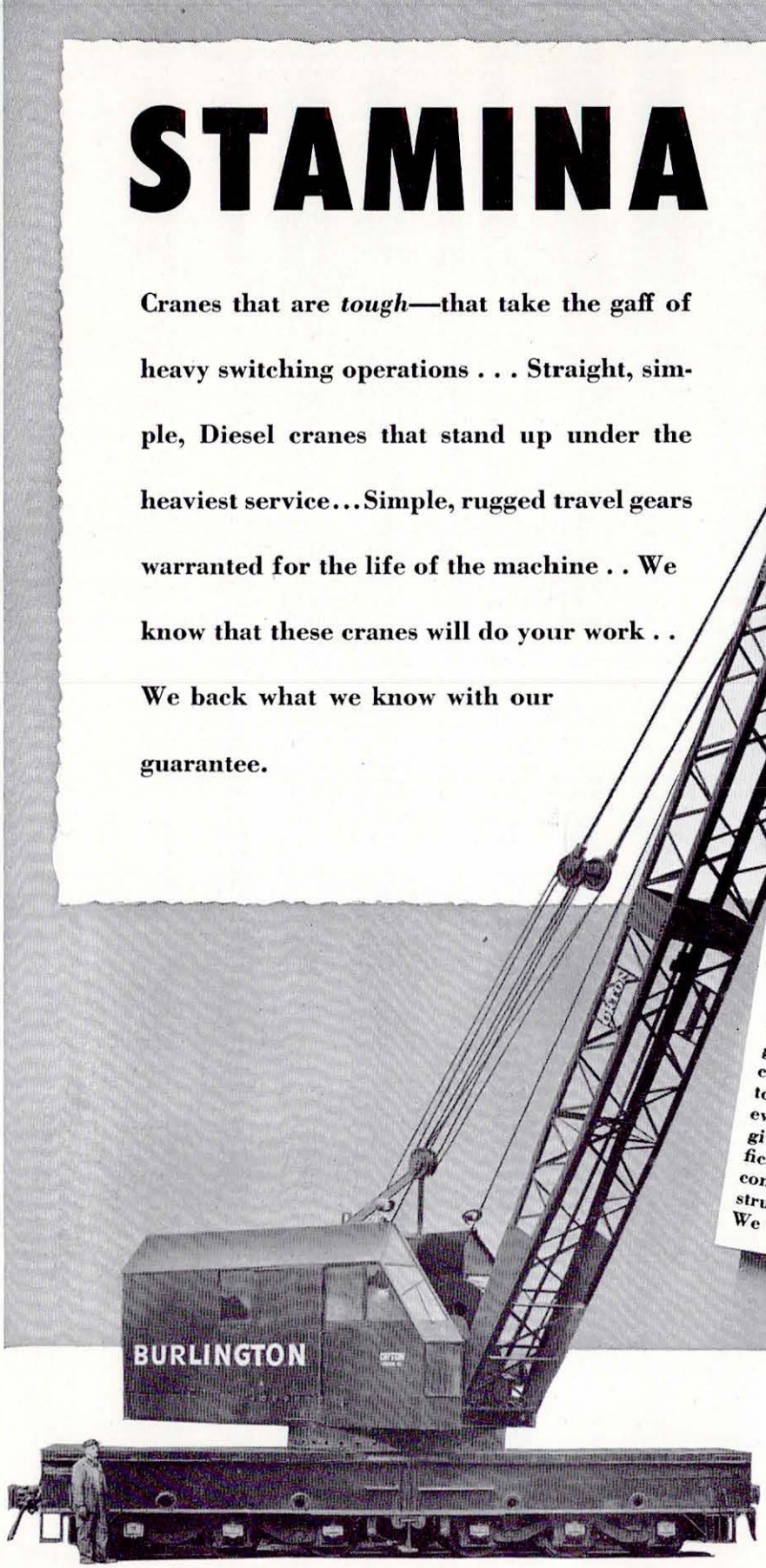

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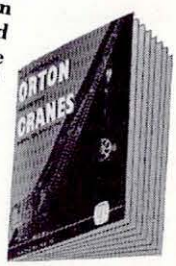

ORTON EXPERIENCE

ORTON

CRANE & SHOVEL COMPANY

608 South Dearborn, Chicago 5, Illinois

Freight Operating Statistics of Large Steam Railways — Selected

Region	Road	Year	Miles of road operated	Locomotive-miles: Train-miles	Locomotive-miles: Principal and helper	Locomotive-miles: Light	Car-miles: Loaded (thousands)	Car-miles: Per cent loaded	Ton-miles (thousands): Gross excl. locos. & tenders	Ton-miles (thousands): Net rev. and non-rev.	Road-locos. on lines: Serviceable: Unstored	Road-locos. on lines: Serviceable: Stored	Road-locos. on lines: B.O.	Road-locos. on lines: Per cent B.O.
New Eng. Region	Boston & Maine	1949	1,746	302,185	312,900	14,584	11,431	66.3	724,992	284,716	107	8	13	10.2
		1948	1,746	352,815	364,901	13,479	13,102	67.7	832,068	349,762	107	..	8	7.0
	N. Y., N. H. & Htfd	1949	1,774	285,011	286,401	21,953	11,896	69.4	708,525	307,082	120	13	14	9.5
		1948	1,815	380,868	388,530	32,805	14,878	69.4	903,898	400,479	158	..	27	14.6
Great Lakes Region	Delaware & Hudson	1949	794	252,577	297,956	34,322	10,602	67.3	727,529	359,443	115	54	26	13.3
		1948	794	312,729	381,403	39,288	23,637	66.5	984,639	521,311	134	23	29	15.6
	Del., Lack. & Western	1949	967	282,820	319,456	33,617	12,350	67.9	802,517	353,327	100	34	9	6.3
		1948	970	361,075	407,162	46,383	14,565	66.7	983,820	443,432	121	6	20	13.6
	Erie	1949	2,229	594,588	610,660	43,499	31,389	67.5	1,941,071	786,237	182	102	57	16.7
		1948	2,229	743,683	780,438	67,835	37,169	64.6	2,438,811	1,019,168	256	21	93	25.1
	Grand Trunk Western	1949	971	236,580	241,235	1,887	7,941	66.6	501,562	203,566	52	8	9	13.0
		1948	972	298,223	305,804	2,899	9,567	67.2	609,100	257,390	64	..	10	13.5
	Lehigh Valley	1949	1,239	241,708	255,464	22,033	11,258	67.9	748,444	344,166	62	19	19	19.0
		1948	1,239	333,077	369,209	51,238	13,887	65.6	955,170	450,310	100	4	46	30.7
	New York Central	1949	10,689	3,027,408	3,226,277	181,630	103,990	61.0	7,125,129	3,087,192	1,056	143	302	20.1
		1948	10,704	3,401,723	3,633,736	248,195	117,493	61.1	8,174,749	3,637,769	1,151	21	316	21.2
	New York, Chic. & St. L.	1949	1,656	615,802	627,874	6,774	24,156	65.7	1,568,050	650,123	140	17	19	10.8
		1948	1,656	702,714	712,507	9,359	27,041	65.3	1,770,397	769,921	154	1	14	8.3
	Pitts. & Lake Erie	1949	221	80,041	81,037	70	3,063	66.6	253,117	148,500	25	5	15	33.3
		1948	223	98,046	100,167	.....	3,603	63.8	305,375	177,042	38	2	10	20.0
	Wabash	1949	2,381	443,635	452,703	9,939	14,323	66.9	926,500	388,508	155	9	40	19.6
		1948	2,381	641,390	655,501	15,359	23,127	70.7	1,461,562	636,421	163	9	31	15.3
Central Eastern Region	Baltimore & Ohio	1949	6,086	1,663,107	1,997,862	212,857	58,902	63.3	4,253,170	2,014,779	723	93	285	25.9
		1948	6,076	1,978,641	2,449,833	257,440	66,928	64.9	4,777,949	2,315,232	804	8	326	28.6
	Central of New Jersey*	1949	415	62,539	62,683	4,639	2,502	65.8	179,339	90,003	31	6	9	19.6
		1948	418	78,487	82,031	9,285	3,221	66.0	243,403	127,929	47	..	16	25.4
	Central of Pennsylvania	1949	212	66,025	69,150	7,289	2,371	65.8	170,843	86,440	29	8	15	28.8
		1948	213	79,018	89,363	16,034	2,932	67.9	214,364	114,601	40	..	14	25.9
	Chicago & Eastern Ill.	1949	909	139,718	139,800	3,807	4,889	66.6	318,535	145,648	33	21	9	14.3
		1948	909	170,092	170,563	3,919	5,476	68.8	362,707	174,581	56	..	12	17.6
	Elgin, Joliet & Eastern	1949	238	99,817	100,675	16	3,625	65.0	279,242	148,445	43	3	..	..
		1948	391	121,307	127,044	4,010	3,758	66.9	283,978	151,343	47	..	4	7.8
	Pennsylvania System	1949	10,039	3,007,329	3,328,810	407,251	120,576	63.3	8,393,134	3,828,407	1,488	160	286	14.8
		1948	10,023	3,680,371	4,124,260	534,232	141,091	64.4	9,766,779	4,601,244	1,805	33	208	14.4
	Reading	1949	1,323	354,476	370,056	32,385	12,041	59.6	973,380	500,979	180	44	23	9.3
		1948	1,350	472,022	519,892	55,002	16,560	63.5	1,283,830	691,235	226	8	27	10.3
	Western Maryland	1949	837	165,997	201,733	25,955	5,858	62.9	472,404	256,387	148	13	15	8.5
		1948	837	193,977	226,886	29,905	6,400	61.5	522,333	280,801	154	1	15	8.8
Pocahontas Region	Chesapeake & Ohio	1949	5,025	1,184,830	1,262,621	48,594	43,898	58.3	3,615,370	1,800,741	533	83	118	16.1
		1948	5,003	1,425,677	1,522,308	62,745	54,483	58.4	4,360,760	2,349,746	600	22	92	12.9
	Norfolk & Western	1949	2,107	624,026	662,491	46,571	26,223	58.8	2,191,758	1,154,686	249	54	22	6.8
		1948	2,107	677,995	723,980	49,883	28,346	60.5	2,238,548	1,249,982	233	47	27	8.8
Southern Region	Atlantic Coast Line	1949	5,543	970,976	986,751	15,009	25,256	60.3	1,728,785	725,537	349	16	88	19.4
		1948	5,552	1,048,238	1,077,758	17,460	27,310	63.9	1,846,701	824,631	364	..	75	17.1
	Central of Georgia	1949	1,783	294,061	299,440	4,004	7,264	71.6	471,944	220,884	109	..	9	7.6
		1948	1,783	307,554	312,616	5,563	7,812	71.6	514,510	245,190	95	2	9	8.5
	Gulf, Mobile & Ohio	1949	2,854	329,105	329,105	389	15,717	71.7	1,028,753	487,094	88	19	6	5.3
		1948	2,847	373,734	377,372	229	16,623	72.8	1,061,369	512,606	129	7	12	8.1
	Illinois Central	1949	6,552	1,443,878	1,447,284	50,467	49,437	62.0	3,481,481	1,588,318	533	23	89	13.8
		1948	6,581	1,423,950	1,430,302	48,285	52,004	64.3	3,595,245	1,669,031	500	69	80	12.3
	Louisville & Nashville	1949	4,765	1,201,681	1,287,513	30,964	30,566	63.1	2,171,501	1,076,092	358	55	57	12.1
		1948	4,750	1,451,533	1,570,458	41,658	35,523	63.6	2,533,644	1,274,800	403	..	79	16.4
	Nash., Chatt. & St. Louis	1949	1,051	228,551	232,899	6,827	6,534	72.7	408,557	187,430	73	..	2	2.7
		1948	1,051	283,496	298,881	8,934	6,861	76.3	425,911	202,715	83	..	13	13.5
	Seaboard Air Line	1949	4,142	864,056	922,761	15,704	25,310	59.9	1,845,117	789,029	274	..	48	14.9
		1948	4,141	881,301	943,348	14,263	25,858	67.0	1,761,461	799,223	295	..	56	16.0
	Southern	1949	6,382	1,333,251	1,343,093	16,944	38,893	65.0	2,515,231	1,068,833	421	94	135	20.8
		1948	6,449	1,666,256	1,693,301	26,432	45,436	69.5	2,856,509	1,275,142	562	21	92	13.6
Northwestern Region	Chicago & North Western	1949	8,073	991,195	1,043,555	26,773	30,099	62.3	2,123,524	918,020	358	29	92	19.2
		1948	8,055	984,654	1,028,209	24,423	31,839	67.9	2,131,055	971,090	352	12	113	23.7
	Chicago Great Western	1949	1,445	184,737	184,838	15,702	8,911	63.9	597,873	251,605	51	..	9	15.0
		1948	1,445	228,080	229,451	9,695	8,957	68.7	579,291	253,066	50	2	25	32.5
	Chic., Milw., St. P. & Pac.	1949	10,663	1,386,192	1,456,177	58,536	44,659	63.7	3,083,832	1,364,122	451	60	87	14.5
		1948	10,663	1,450,185	1,511,003	63,548	45,768	67.4	3,036,860	1,380,218	474	40	108	17.4
	Chic., St. P., Minn. & Omaha	1949	1,606	214,569	224,995	10,472	5,481	66.9	380,094	171,558	79	3	35	29.9
		1948	1,606	228,038	244,418	13,398	5,715	67.1	394,094	178,249	80	..	38	32.2
	Duluth, Missabe & Iron Range	1949	575	47,423	47,610	573	1,443	51.4	130,903	70,658	49	3	4	7.1
		1948	569	34,336	34,498	675	530	50.0	40,572	17,775	30	2	18	36.0
	Great Northern	1949	8,222	1,028,092	1,027,227	43,481	37,022	64.6	2,616,401	1,184,760	354	45	61	13.3
		1948	8,237	1,058,168	1,055,928	40,900	37,543	65.9	2,561,320	1,122,182	350	55	80	16.5
	Minneap., St.P. & S. Ste. M.	1949	4,179	408,797	422,552	9,276	12,215	66.2	807,453	372,361	122	..	18	9.6
		1948	4,180	435,176	446,236	10,561	12,300	69.3	777,656	357,904	124	..	18	12.7
	Northern Pacific	1949	6,593	802,836	844,846	44,052	30,550	69.3	2,095,285	975,251	320	28	59	14.5
		1948	6,613	839,782	880,529	52,964	30,785	69.9	2,070,645	981,229	355	27	43	10.1
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1949	13,103	2,470,597	2,610,457	104,263	92,428	65.9	6,216,301	2,525,384	637	166	133	14.2
		1948	13,082	2,826,329	2,982,517	122,328	102,626	66.1	6,839,765	2,784,915	684	131	138	14.5
	Chic., Burl. & Quincy	1949	8,680	1,161,606	1,176,183	30,116	45,737	64.0	3,146,640	1,395,957	416	49	104	18.3
		1948	8,670	1,283,585	1,311,814	44,231	49,584	63.4	3,384,405	1,486,666	405	31	101	18.8
	Chic., Rock I. & Pac.	1949	7,589	1,177,052	1,220,880	14,613	37,785	61.6	2,577,244	1,091,019	265	39	55	15.3
		1948	7,618	1,231,449	1,268,089	16,370	40,266	64.7	2,644,291	1,130,105	261	42	78	20.5
	Denver & R. G. Wn.	1949	2,443	362,395	405,634	53,566	12,780	69.3	912,479	452,566	123	34	45	22.3
		1948	2,443	332,803	372,087	47,130	11,405	74.2	768,139	387,692	137	47	45	19.7
	Southern Pacific	1949	8,089	1,867,623	2,032,672	306,515	78,183	65.5	5,227,254	2,144,493	722	40	157	17.1
		1948	8,109	1,996,251	2,222,054	369,466	84,332	68.9	5,497,997	2,341,598	695	27	175	19.5
	Union Pacific	1949	9,727	2,147,582	2,227,389	151,028	83,926	63.7	5,922,123	2,568,957	527	100	172	21.5
		1948	9,752	2,080,579	2,169,086	178,812	84,855	69.8	5,545,166	2,617,779	560	110	100	13.0
	Western Pacific	1949	1,192	215,726	238,416	23,122	9,028	71.9	598,205	281,215	58	46	19	15.4
		1948	1,192	218,248	238,062	24,150	9,424	77.5	583,287	277,571	68	41	18	14.2
Southwestern Region	International-Gt. Northern*	1949	1,110	211,329	212,198	784	5,877	56.6	477,400	215,206	64	4	4	5.6
		1948	1,110	270,189	272,043	1,530	7,018	64.5	496,934	225,846	71	..	9	11.3
	Kansas City Southern	1949	886	193,254	195,087	1,946	9,178	63.6	658,827	306,217	46	3	6	10.9
		1948	885	192,239	194,605	1,347	8,639	67.1	583,515	267,133	43	8	4	7.3
	Mo.-Kans.-Texas Lines	1949	3,241	524,607	535,205	7,537	16,615	61.1	1,154,178	502,737	111	12	38	23.6
		1948	3,241	485,386	495,436	8,643	16,089	65.4	1,036,528	446,902	118	1	35	22.7
	Missouri Pacific*	1949	6,989	1,321,055	1,359,010	26,095	45,099	64.0	3,089,188	1,314,181	373	41	44	9.6
		1948	6,986	1,532,488	1,579,647	30,694	50,413	64.1	3,443,953	1,474,882	423	11	61	12.3
	Texas & Pacific	1949	1,852	402,681	402,681	17,423	13,183	58.1	943,544	348,136	111	2	8	6.6
		1948	1,852	588,942	588,942	14,590	18,026	59.7	1,281,927	511,012	124	..	10	7.5
	St. Louis-San Francisco	1949	4,615	775,353	788,525	9,133	22,813	60.6	1,616,809	696,077	256	34	64	18.1
		1948	4,615	930,959	959,504	11,319	23,343	64.9	1,579,524	683,431	302	2	29	8.7
	St. Louis Southw. Lines	1949	1,562	393,502	395,027	5,369	15,194	69.3	949,105	424,263	82	8	14	13.5
		1948	1,568	452,152	453,815	6,337	17,289	73.5	1,042,336	465,939	91	7	8	7.5
	Texas & New Orleans	1949	4,314	831,799	832,056	21,677	25,415	67.1	1,733,199	756,562	205	2	41	16.5
		1948	4,314	990,055	990,558	15,907	27,741	71.4	1,813,916	808,605	217	1	33	13.1

Items for the Month of March 1949 Compared with March 1948

	Region, road and year	Freight cars on line: Home	Foreign	Total	Per Cent. B.O.	G.t.m.per train-hr. excl.locos. and tenders	G.t.m.per train-mi. excl.locos and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd. car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Mi. per loco. per day
New Eng. Region	Boston & Maine	1949 2,475	8,234	10,709	2.8	39,621	2,405	944	24.9	865	52.4	5,260	16.5	90.5
		1948 1,720	10,613	12,333	2.2	34,484	2,363	993	26.7	802	44.4	6,462	14.6	114.7
	N. Y., N. H. & Htfd	1949 2,221	15,487	17,708	1.9	36,675	2,494	1,081	25.8	543	30.3	5,584	14.8	70.5
		1948 1,405	19,353	20,758	1.6	31,973	2,376	1,053	26.9	537	28.8	7,118	13.5	80.8
Great Lakes Region	Delaware & Hudson	1949 6,720	4,132	10,852	4.5	55,801	2,896	1,431	33.9	1,055	46.3	14,603	19.4	58.1
		1948 3,185	6,459	9,644	4.6	53,029	3,166	1,676	38.2	1,584	62.3	21,179	16.8	78.5
	Del., Lack. & Western	1949 8,195	8,546	16,741	5.9	44,522	2,877	1,267	28.6	687	35.4	11,787	15.7	88.1
		1948 5,054	11,579	16,633	4.7	40,627	2,765	1,246	30.4	760	37.4	14,747	14.9	111.9
	Erie	1949 12,871	15,461	28,332	7.4	54,632	3,290	1,333	25.0	916	54.1	11,378	16.7	68.1
		1948 7,400	22,323	29,723	4.2	52,856	3,299	1,379	27.4	985	55.6	14,749	16.1	81.7
	Grand Trunk Western	1949 4,995	6,466	11,461	10.3	44,101	2,132	865	25.6	556	32.5	6,763	20.8	121.5
		1948 3,929	10,163	14,092	6.7	38,062	2,054	868	26.9	572	31.6	8,542	18.6	143.7
	Lehigh Valley	1949 10,833	8,074	18,907	11.2	58,299	3,149	1,448	30.6	602	29.0	8,961	18.8	90.8
		1948 7,353	13,374	20,727	7.2	49,803	2,942	1,387	32.4	645	30.3	11,724	17.4	94.2
	New York Central	1949 75,488	73,754	149,242	6.1	40,378	2,387	1,034	29.7	665	36.7	9,317	17.2	81.8
		1948 55,217	95,592	150,809	3.4	35,475	2,437	1,084	31.0	732	38.7	10,963	14.8	95.1
	New York, Chic. & St. L.	1949 4,238	11,579	15,817	3.3	53,315	2,591	1,074	26.9	1,306	74.7	12,664	20.9	124.0
		1948 2,899	12,147	15,046	1.9	46,925	2,534	1,089	28.1	1,520	82.7	14,822	18.6	146.9
	Pitts. & Lake Erie	1949 7,473	10,028	17,501	6.6	47,722	3,171	1,860	48.5	285	8.8	21,676	15.1	60.0
		1948 5,358	11,128	16,486	5.1	46,894	3,123	1,811	49.1	381	12.1	25,610	15.1	74.8
	Wabash	1949 8,648	9,735	18,383	3.2	44,468	2,105	883	27.1	669	36.8	5,264	21.3	78.6
		1948 5,463	14,105	19,568	2.9	44,175	2,298	1,001	27.5	1,043	53.6	8,622	19.4	111.6
Central Eastern Region	Baltimore & Ohio	1949 63,949	34,366	98,315	9.7	35,765	2,603	1,233	34.2	681	31.4	10,679	14.0	66.5
		1948 50,389	41,326	91,715	5.9	31,620	2,467	1,195	34.6	835	37.2	12,292	13.1	80.1
	Central of New Jersey*	1949 1,004	8,246	9,250	5.6	38,936	2,957	1,484	36.0	301	12.7	6,996	13.6	78.6
		1948 620	10,317	10,937	4.5	38,223	3,199	1,681	39.7	362	13.8	9,873	12.3	75.5
	Central of Pennsylvania	1949 2,296	2,928	5,224	9.0	39,265	2,749	1,391	36.5	540	22.5	13,153	15.2	54.3
		1948 884	3,829	4,713	7.1	37,900	2,862	1,530	39.1	773	29.1	17,356	14.0	73.2
	Chicago & Eastern Ill	1949 3,330	3,238	6,568	7.2	40,588	2,290	1,047	29.8	730	36.8	5,169	17.8	72.4
		1948 2,476	4,143	6,619	4.0	37,026	2,190	1,054	31.9	908	41.4	6,195	17.4	84.8
	Elgin, Joliet & Eastern	1949 6,920	11,884	18,804	1.6	20,032	2,967	1,577	41.0	255	9.6	20,120	7.2	99.1
		1948 6,510	11,648	18,158	2.4	14,824	2,478	1,321	40.3	260	9.7	12,486	6.3	116.4
	Pennsylvania System	1949 150,612	87,485	238,097	8.7	41,513	2,870	1,309	31.8	524	26.0	12,302	14.9	68.0
		1948 123,023	117,221	240,244	9.5	36,079	2,735	1,288	32.6	624	29.7	14,809	13.6	76.3
	Reading	1949 17,213	16,356	33,569	5.5	36,094	2,749	1,415	41.6	480	19.4	12,215	13.1	62.8
		1948 9,328	22,524	31,852	3.7	32,611	2,730	1,470	41.7	683	25.8	16,517	12.0	83.1
	Western Maryland	1949 7,386	3,267	10,653	1.2	40,082	2,890	1,569	43.8	803	29.2	9,881	14.1	45.7
		1948 4,953	4,088	9,041	.8	29,492	2,740	1,473	43.9	1,131	41.9	10,822	11.0	53.2
Pocahontas Region	Chesapeake & Ohio	1949 69,108	20,840	89,948	2.4	50,980	3,075	1,532	41.0	681	28.4	11,560	16.7	62.4
		1948 58,935	26,564	85,499	3.1	47,680	3,100	1,670	43.1	985	39.1	15,151	15.6	77.7
	Norfolk & Western	1949 44,084	5,938	50,022	5.0	59,055	3,558	1,875	44.0	796	30.7	17,678	16.8	76.4
		1948 39,050	6,615	45,665	1.8	54,093	3,351	1,871	44.1	996	37.3	19,137	16.4	87.5
Southern Region	Atlantic Coast Line	1949 12,446	15,612	28,058	5.2	29,681	1,785	749	28.7	834	48.2	4,222	16.7	75.8
		1948 8,764	19,348	28,112	5.0	27,207	1,767	789	30.2	911	47.3	4,791	15.4	89.1
	Central of Georgia	1949 3,506	4,901	8,407	7.5	29,199	1,609	753	30.4	856	39.3	3,996	18.2	93.8
		1948 1,999	6,229	8,228	3.5	30,025	1,679	800	31.4	1,032	46.0	4,436	17.9	103.5
	Gulf, Mobile & Ohio	1949 4,354	9,892	14,246	2.2	59,986	3,133	1,483	31.0	1,122	50.5	5,506	19.2	98.6
		1948 2,849	12,171	15,020	1.7	53,521	2,850	1,377	30.8	1,097	48.9	5,808	18.8	87.7
	Illinois Central	1949 27,222	25,655	52,877	2.2	44,650	2,443	1,114	32.1	973	48.9	7,820	18.5	79.5
		1948 20,832	36,710	57,542	1.3	41,791	2,563	1,190	32.1	987	47.8	8,181	16.6	77.7
	Louisville & Nashville	1949 44,570	12,691	57,261	2.9	29,506	1,813	898	35.2	634	28.5	7,285	16.3	95.3
		1948 39,470	15,608	55,078	2.6	26,705	1,745	878	35.9	840	36.8	8,657	15.3	112.3
	Nash., Chatt. & St. Louis	1949 2,459	4,320	6,779	10.5	35,713	1,795	824	28.7	941	45.1	5,753	20.0	109.4
		1948 1,459	4,922	6,381	3.9	28,600	1,511	719	29.5	920	40.8	6,222	19.0	108.8
	Seaboard Air Line	1949 11,003	13,238	24,241	1.4	37,695	2,202	942	31.2	1,069	57.3	6,145	17.7	104.6
		1948 6,627	16,124	22,751	1.8	34,497	2,051	931	30.9	1,094	52.8	6,226	17.3	102.7
	Southern	1949 17,982	28,449	46,431	5.4	33,436	1,899	807	27.5	737	41.3	5,403	17.7	73.1
		1948 13,075	29,358	42,433	4.4	29,051	1,734	774	28.1	944	48.4	6,378	16.9	88.6
Northwestern Region	Chicago & North Western	1949 22,317	23,143	45,460	2.7	33,523	2,267	980	30.5	619	32.6	3,668	15.6	79.2
		1948 19,504	34,381	53,885	3.2	31,320	2,265	1,032	30.5	584	28.2	3,889	14.5	77.3
	Chicago Great Western	1949 2,063	4,775	6,838	5.5	51,737	3,236	1,362	28.2	1,149	63.7	5,617	16.0	110.9
		1948 1,194	4,617	5,811	4.0	40,709	2,541	1,110	28.3	1,358	70.0	5,649	16.0	100.8
	Chic., Milw., St. P. & Pac.	1949 31,415	27,370	58,784	1.4	35,850	2,240	991	30.5	724	37.2	4,127	16.1	87.7
		1948 22,600	38,628	61,228	2.1	30,583	2,117	962	30.2	676	33.3	4,175	14.6	87.8
	Chic., St. P., Minn. & Omaha	1949 1,146	5,689	6,835	3.5	25,222	1,856	838	31.3	727	34.7	3,446	14.2	72.3
		1948 879	7,075	7,954	5.4	22,575	1,786	808	31.2	689	32.9	3,580	13.1	78.5
	Duluth, Missabe & Iron Range	1948 14,888	420	15,308	3.1	41,333	2,874	1,551	49.0	146	5.8	3,964	15.0	35.1
		1948 14,586	688	15,274	3.1	15,474	1,242	544	33.5	38	2.3	1,008	13.1	27.7
	Great Northern	1949 25,347	16,502	41,849	3.2	40,724	2,559	1,159	32.0	898	43.4	4,648	16.0	83.6
		1948 21,228	22,470	43,698	2.6	37,684	2,434	1,067	30.0	842	42.7	4,395	15.6	79.1
	Minneap., St.P. & S. Ste. M	1949 6,611	7,125	13,736	6.4	34,944	1,993	919	30.5	821	40.7	2,874	17.7	112.6
		1948 6,147	9,714	15,861	5.4	29,796	1,799	828	29.1	714	35.4	2,762	16.7	109.7
	Northern Pacific	1949 20,573	14,884	35,457	7.0	44,537	2,622	1,220	32.0	883	39.9	4,772	17.1	75.9
		1948 17,270	18,796	36,066	4.3	41,660	2,479	1,175	31.9	896	40.2	4,786	16.9	77.4
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1949 49,584	27,749	77,333	4.8	51,510	2,526	1,026	27.3	1,070	59.4	6,217	20.5	98.2
		1948 38,004	33,298	71,302	6.2	48,484	2,429	989	27.1	1,318	73.5	6,867	20.0	109.4
	Chic., Burl. & Quincy	1949 19,058	27,717	46,775	3.3	49,959	2,718	1,206	30.5	1,038	53.2	5,188	18.4	74.9
		1948 15,961	25,936	41,897	3.5	45,195	2,648	1,163	30.0	1,139	59.9	5,531	17.1	86.2
	Chic., Rock I. & Pac	1949 12,820	21,504	34,324	3.7	40,613	2,198	930	28.9	1,012	56.9	4,638	18.5	113.9
		1948 8,997	24,687	33,684	4.1	37,578	2,152	920	28.1	1,091	60.1	4,785	17.5	112.3
	Denver & R. G. Wn.	1949 8,395	5,906	14,301	4.6	41,332	2,539	1,259	35.4	928	37.8	5,976	16.4	76.2
		1948 7,428	4,915	12,343	4.0	39,901	2,323	1,173	34.0	977	38.7	5,119	17.3	61.9
	Southern Pacific	1949 27,616	34,697	62,313	4.6	45,712	2,822	1,158	27.4	1,122	62.5	8,552	16.3	87.6
		1948 23,853	33,093	56,946	3.8	45,102	2,774	1,182	27.8	1,305	68.2	9,315	16.4	97.6
	Union Pacific	1949 29,701	30,910	60,611	3.4	57,810	2,784	1,208	30.6	1,319	67.6	8,520	21.0	100.5
		1948 26,134	30,906	57,040	3.5	55,135	2,687	1,269	30.9	1,521	70.6	8,659	20.7	101.3
	Western Pacific	1949 2,284	2,210	4,494	9.8	57,781	2,791	1,312	31.1	1,938	86.6	7,610	20.8	70.3
		1948 2,094	3,032	5,126	6.2	57,129	2,698	1,284	29.5	1,670	73.2	7,512	21.4	68.9
Southwestern Region	International-Gt. Northern*	1949 920	6,508	7,428	.9	43,204	2,283	1,029	36.6	918	44.3	6,254	19.1	101.1
		1948 477	6,910	7,387	1.3	33,686	1,863	847	32.2	1,012	48.7	6,563	18.3	115.9
	Kansas City Southern	1949 1,701	5,887	7,588	5.0	67,593	3,429	1,594	33.4	1,281	60.4	11,149	19.8	125.6
		1948 1,199	5,646	6,845	3.9	58,917	3,052	1,397	30.9	1,283	61.8	9,737	19.4	121.0
	Mo.-Kans.-Texas Lines	1949 4,429	6,379	10,808	1.9	41,529	2,218	966	30.3	1,505	81.4	5,004	18.9	117.7
		1948 1,909	7,756	9,665	.5	39,871	2,143	924	27.8	1,509	83.1	4,448	18.7	110.6
	Missouri Pacific*	1949 17,935	17,575	35,510	2.0	46,418	2,350	1,000	29.1	1,194	64.0	6,066	19.3	102.9
		1948 15,877	22,930	38,807	1.8	41,631	2,259	967	29.3	1,247	66.5	6,810	18.5	110.6
	Texas & Pacific	1949 2,598	5,924	8,522	4.4	49,356	2,351	867	26.4	1,314	85.6	6,064	21.1	119.1
		1948 1,683	9,065	10,748	2.3	40,084	2,197	876	28.3	1,618	95.6	8,901	18.4	155.5
	St. Louis-San Francisco	1949 11,606	11,833	23,439	2.7	40,321	2 095	902	30.5	983	53.2	4,865	19.3	79.0
		1948 6,322	12,495	18,817	2.0	34,403	1,704	737	29.3	1,167	61.4	4,777	20.3	100.0
	St. Louis Southw. Lines	1949 2,000	4,874	6,874	2.0	46,628	2,418	1,080	27.9	1,934	100.0	8,762	19.3	131.8
		1948 1,155	6,025	7,180	2.2	43,572	2,308	1,032	27.0	2,012	101.5	9,586	18.9	147.0
	Texas & New Orleans	1949 4 890	16,653	21,543	2.4	40,748	2,104	919	29.8	1 147	57.4	5,657	19.6	116.6
		1948 3,983	16,250	20,233	3.0	36,775	1,846	823	29.1	1,313	63.1	6,046	20.1	137.0

*Report of trustee or trustees.

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GENERAL NEWS

(Continued from page 69)

Faricy Heads Pan American Rail Group Named by Truman

William T. Faricy, president of the Association of American Railroads, has been appointed by President Truman as chairman of the United States National Commission in the Pan American Railway Congress Association. James G. Lyne, president of the Simmons-Boardman Publishing Corporation and editor of *Railway Age*, is one of the seven other members of the commission who were also appointed by the President on June 14.

The other members are: Secretary of Commerce Charles Sawyer; Willard L. Thorp, assistant secretary of state; Chairman Charles D. Mahaffie of the Interstate Commerce Commission; J. M. Hood, president of the American Short Line Railroad Association; A. E. Lyon, executive secretary of the Railway Labor Executives' Association; and George P. Baker, professor of transportation, Graduate School of Business Administration, Harvard University.

The appointments were announced by the Department of State in a statement which also said that the commission will hold its first meeting in Washington, D. C., on June 21. The statement went on to say that the commission's responsibilities "are outlined in general terms in the charter of the Pan American Railway Congress Association as including assistance in the organization of periodic congresses and preparation of special studies." Congress provided for this country's participation in the association's activities by legislation which was approved by the President on June 28, 1948.

The aims of the association are "to promote the development and progress of railways in the American continent" by holding congresses, publishing a bulletin and other documents, and maintaining information services. The association has held six congresses since 1910, the sixth having been held in Havana, Cuba, in April, 1948. The seventh congress will be held in Mexico City in October, 1950. The following 17 countries are now members of the association: Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Haiti, Mexico, Panama, Paraguay, Peru, United States, Uruguay, and Venezuela.

Sees Signs of Turn Toward Reduction in Loss and Damage

The fact that fewer claims for freight lost or damaged were filed in 1948 than in 1947 has been cited by the Freight Claim Division, Association of American Railroads, as an indication of "a definite turn toward reduction in loss and damage to railroad shipments." The division on June 14 reported to its member roads

that claims filed last year totaled 4,890,601, a reduction of 17 per cent below the 5,872,542 filed in 1947.

Meanwhile, however, the amount paid in settlement of 1948 claims was $135 million, $13 million more than in 1947. This $135 million figure (like others in the division's report) covers Canadian as well as United States roads; and is thus larger than the figure ($129.5 million) for 1948 claim payments of Class I line-haul roads reporting to the Interstate Commerce Commission, which was used by the commission's Bureau of Transport Economics and Statistics in the latest issue of its "Monthly Comment" (see article elsewhere in this issue).

In commenting on the $13 million increase in 1948 payments above 1947, the A.A.R. division said that "a major part of the claims paid in 1948 were for damage occurring previously," and that "a substantial part of the increase in claims payments was due to the continued rise in prices." It added that the number of claims in process of settlement at the end of 1948 was 31 per cent fewer than it was a year before, and this was interpreted as indicating "both substantial progress in expediting settlements for past claims and a favorable effect upon 1949 settlements." The division also said:

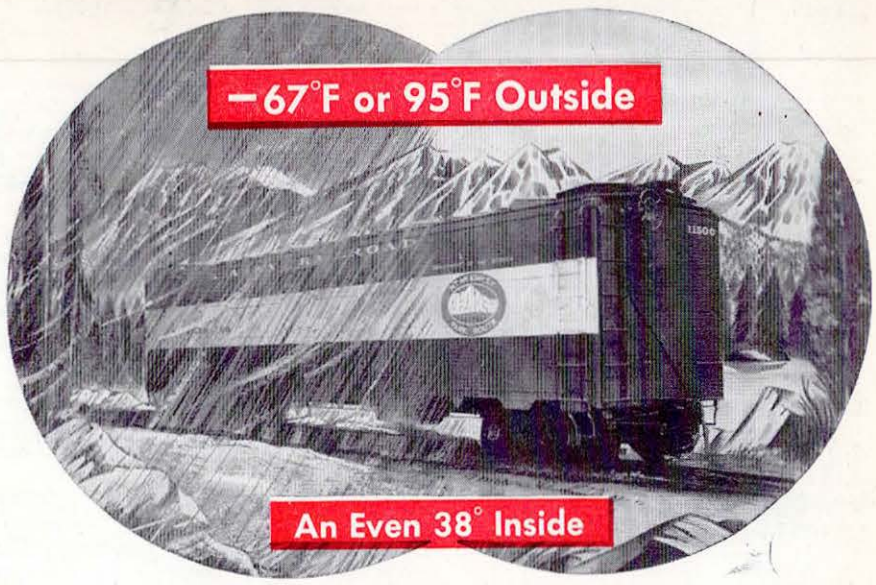
"What has been accomplished by the combined efforts of shippers and the railroads has already shown that there is real hope for continued and substantial improvement in reducing freight loss and damage. Efforts made by the railroads with the cooperation of shippers to further reduce loss and damage will be intensified during 1949. The Perfect Shipping Campaign will be continued on a year-round basis and its effects will be reflected in improved packaging, marking and handling.

"The condition of the average freight car will improve steadily, with the result that good floors, walls and doorposts will reduce potential damage hazards. Better protection for freight will also come from new and more adequate shipping containers of all types, which are in more abundant supply, while increased mechanization of equipment for freight handling at terminals and freight stations will contribute much to safer transportation."

New Volume of Interstate Commerce Acts Annotated

Secretary W. P. Bartel of the Interstate Commerce Commission has announced that Volume 14 of the Interstate Commerce Acts Annotated is now on sale at the Government Printing Office, Washington, D. C. The price is $2 per copy.

The volume is known as the 1948 supplement. It covers statutes enacted and amendments to the law since issuance of the previous volume, annotations of decisions of the commission and the courts, a table of federal precedents cited, a table of cases with their histories, interpretations of the commission's rules of practice, and references to regulations of the commission with Federal Register page citations.



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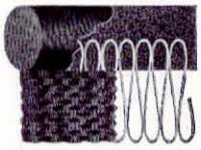

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Current Publications

TRADE PUBLICATIONS

Yale Load King Scale Weight Printer. 12 pages, 3 colors. Published by the Yale & Towne Manufacturing Co., Philadelphia 15, Pa.

Describes and illustrates this company's weight printer, explaining why it was developed, how it operates, the functions it will perform, how it is constructed, and what models are available to perform a particular job.

Aluminum Structural Design. 124 pages. Published by the Reynolds Metals Company, 2500 South Third st., Louisville 1, Ky.

A handbook on the design of load-carrying aluminum structures. The purpose of the book is to enable the engineer familiar with mechanics of materials to design an original structure of aluminum, or to convert an existing structural design from some other material to aluminum.

PAMPHLETS

Bulletin No. 76 of the Railway & Locomotive Historical Society. 80 pages, illustrations. Published by the Railway & Locomotive Historical Society, Baker Library, Harvard Business School, Boston, Mass. Price, to members, $1; to non-members, $2.

This bulletin presents the first portion of a contribution by Charles F. H. Allen on "The Railroads of McKean County, Pa., Including the Narrow Gage System of the Erie," with several interesting photographs of the famous Kinzua bridge accompanying the article. Also contained in this bulletin is an article covering the Denver & Rio Grande Western in and around the San Juan mountains, the last in the "Rails Among Peaks" series by Josie Moore Crum: and "The Chicago & Aurora Railroad (Part II)," by A. W. Newton, giving a further account of the formation of the present Chicago, Burlington & Quincy.

Toxic Eye Hazards. 102 pages, illustrations, tables, reference list for additional reading. Published by the National Society for the Prevention of Blindness, 1790 Broadway, New York 19. Price, $1, with reductions for quantity orders.

Designed both for laymen and professional personnel, this manual should prove useful to safety engineers, claim adjusters, medical directors or others dealing with industrial eye injuries and problems of protection. It covers types of protective equipment best suited to specific hazards, a standard program for eye safety from chemical exposure, tables of toxic chemicals and specific first aid procedures for chemical eye injuries.

The Great Illusion—An Inexhaustible Public Purse, by Thomas S. Holden. 23 pages, tables, charts, appendices. Published by the National Association of Manufacturers, 14 W. 49th st., New York 20.

One of the problems of centralized government, far removed in its policy-making from the community life of its citizens, is

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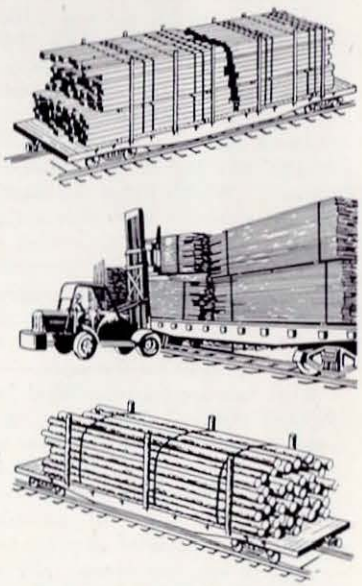

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the illusion that money received from that government is "free money." This illusion may have a certain temporary substance when the government is spending substantially more money than it takes in, as was the case in this nation from 1930 through 1946. Over the long pull, however, people pay for all they get, plus interest charges from past periods of deficit financing and overhead costs incident to sending the money to the central government and then getting it back again. One of the means by which the illusion is fostered and perpetuated is the system of grants-in-aid from the central government to other governmental levels—which is the subject covered by this study. It was found that proponents of federal grants-in-aid currently place strong reliance on two major arguments: "(I) If we can afford X billions for this purpose, we can afford Y millions for grants to the states, and (II) the 'poorer' states need Federal aid." It is hoped that this report will stimulate discussion of the validity of these arguments, and thus contribute to the review of policy on grants-in-aid in the light of overall government commitments and the states' need for financial assistance from the federal government.

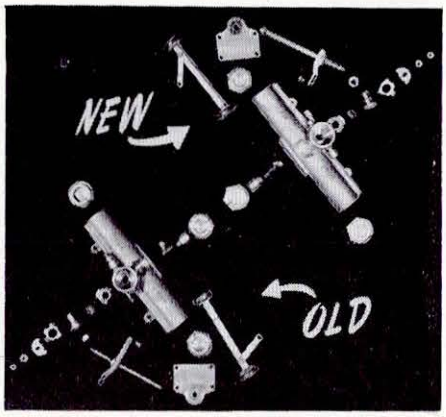
PERIODICAL ARTICLE

The Coming Crisis in Transportation. Fortune, June, 1949, pp. 71-73. Published by Time, Inc., 540 N. Michigan ave., Chicago 11. Single copies, $1.25.

All railroad men may not agree with all the conclusions set forth in this thumbnail sketch of the nation's transportation problem. But most railroad men will probably subscribe wholeheartedly to most of those conclusions. The fact that so widely distributed a publication as Fortune recognizes the existence of the problem, and discusses it so frankly and effectively, is in itself enough to support the hope that the problem will be even more generally recognized, and perhaps solved, before things are allowed to drift to a point where socialization becomes the only possible answer.

There are now, Fortune says, only two alternatives; one, of course, is government ownership, and the other "is to let rails assume a more dynamic role in the economy. This means that government and labor must stop treating them as the monopoly they no longer are. It means that they must be allowed to abandon hopelessly unprofitable operations. It means they must be allowed to market their product—to set rates quickly and boldly. . . . All this means nothing less than a radical revision of the Interstate Commerce Act. . . .

"The time is plainly at hand when the people and the Congress, who have been shunning a decision so long, must act. The dead hand of government control must be lifted from the living channels of commerce and trade. The American railroads must be put back into the free enterprise system."



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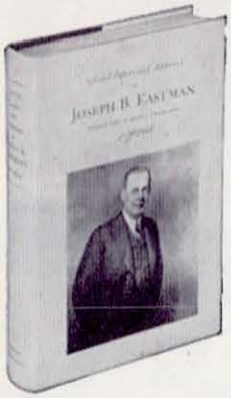

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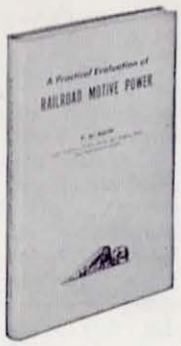

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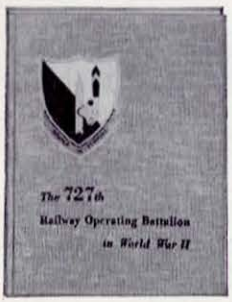

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CONTENTS

Routing and Misrouting—General. Shippers' Rights to Specify Routing. Routed Shipments. Partially Routed Shipments. Unrouted Shipments. Ambiguous and Conflicting Instructions. Indefinite and Incomplete Routing Instructions. Reconsigned Shipments. Embargoes. Liabilities as Between Railroads. Damages. Recapitulation. Citations. Index.

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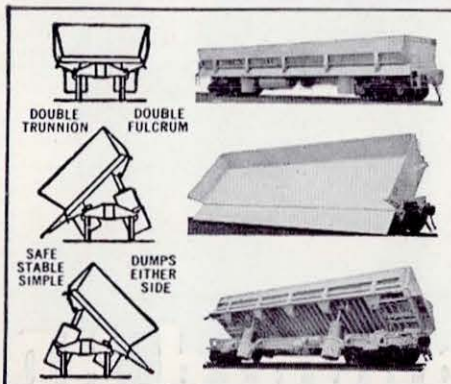

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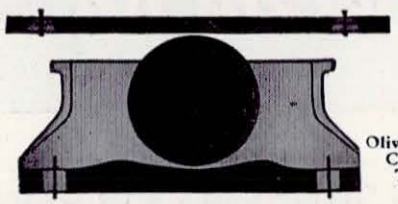

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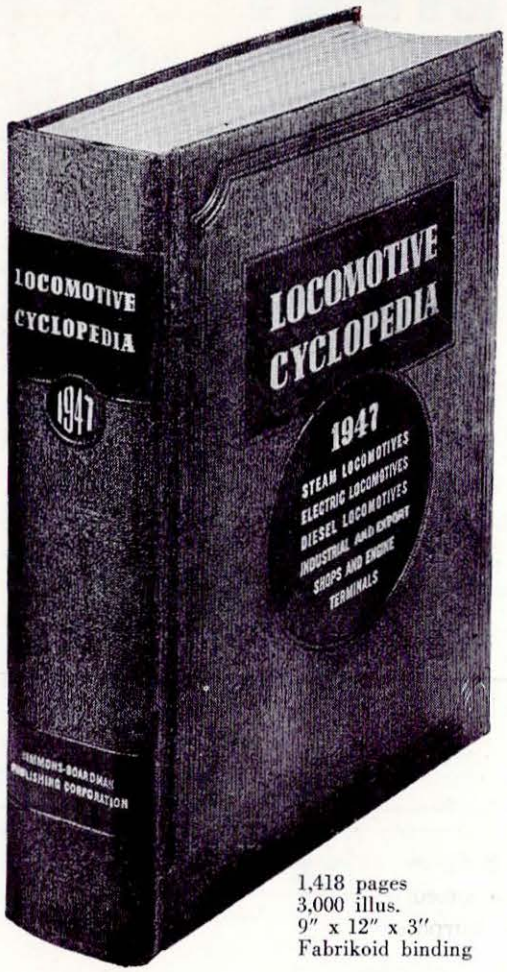

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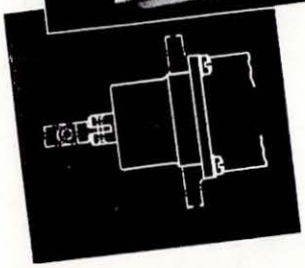

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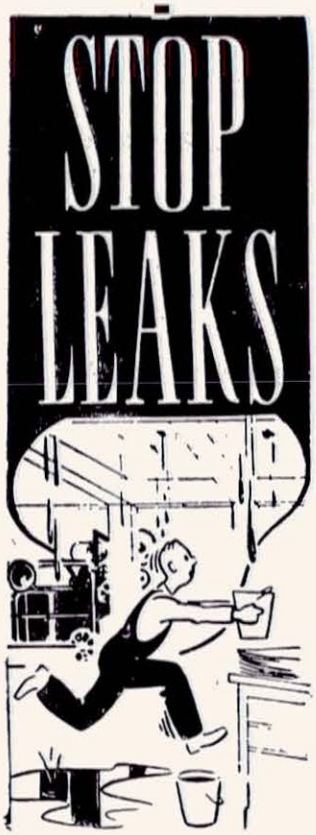

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Photo taken in Southern Illinois coal fields by William Vandivert

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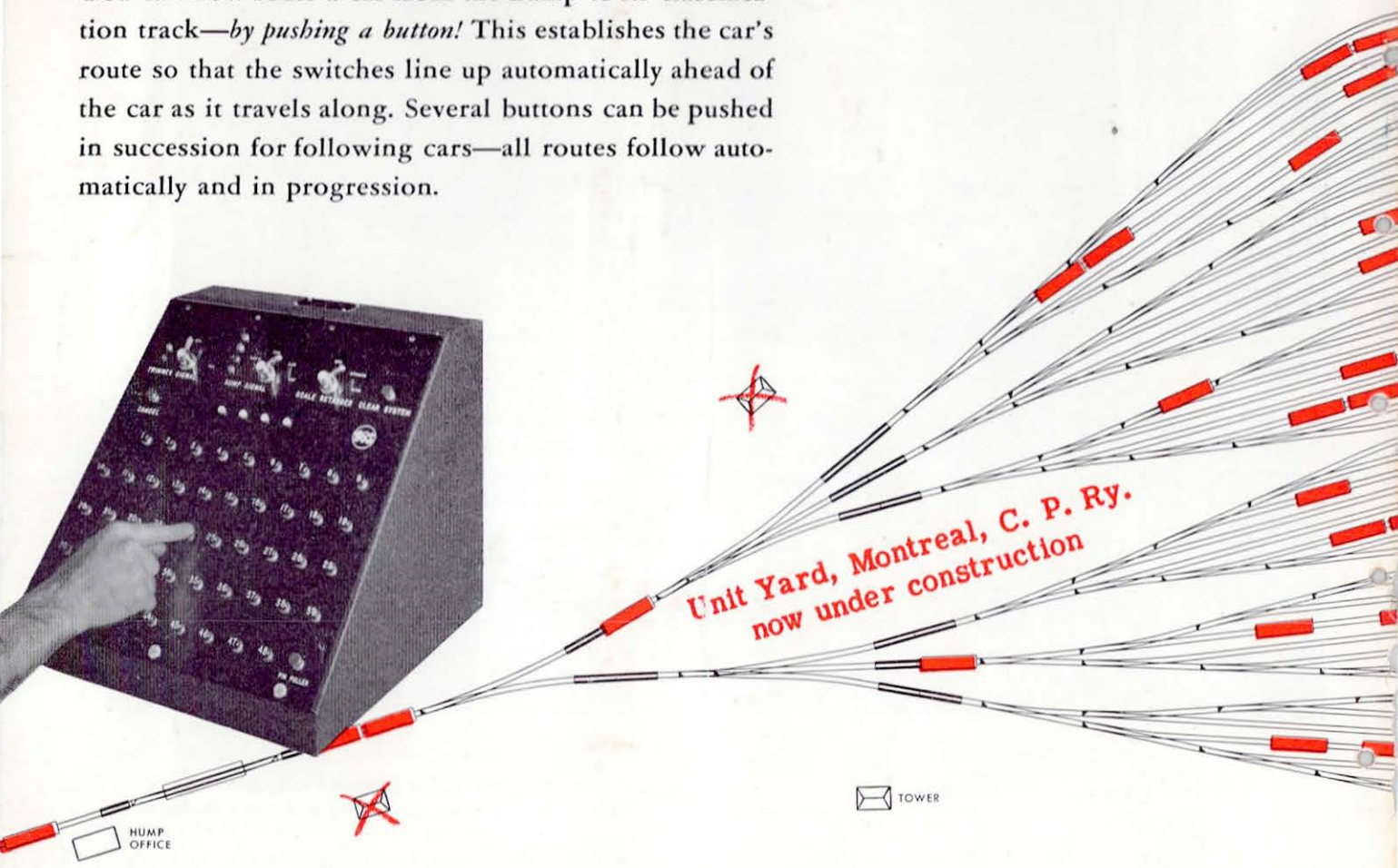

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